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EDITED BY

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PHILADELPHIA.

LEADING ARTICLE:

"The Uric-Acid Diathesis."

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NEWS AND THERAPEUTIC HINTS.

Substitute for a Real Steam-bath.

When the steam-bath is indicated in country practice it is easily and satisfactorily given by boiling a dozen or more ears of corn, taking them from the water while boiling, wrapping in cloths moistened in hot water, and packing them as close to the patient as possible. Keep him closely covered, and a few moments will bring the most profuse perspiration you ever saw.—Ex.

Tomatoes.

Tomatoes are valuable as food, not on account of their nutritive power, which is quite small, but as a relish. While ordinarily classed as a vegetable, the tomato is botanically a fruit.

Persons having a tendency to acidity of the stomach may suffer from sour stomach and burning as a result of using tomatoes, not from fermentation, but because the tomato stimulates the glands of the stomach to an increased production of hydrochloric acid. This seems to be especially the case with very early or very late tomatoes, and with canned tomatoes. As with many other foods, the tomato is not so good out of season.

Many people experience distress as a result of combining potato and tomato, the explanation usually given being that the acid of the tomato interferes with starch digestion.

The belief that tomato causes cancer is without any foundation whatever. Aside from its effect on acid stomachs and the irritating effect its seeds sometimes have on inflamed conditions of the intestinal tract, the tomato is harmless.—Pacific Health Journal.

Tuberculosis, Statistics of Deaths from.

The combined statistics of ten of our principal cities shows that, for the year ending June 1, 1901. 18,763 people died of tuberculosis. In New York, 7919; in Philadelphia, 2851; in Chicago, 2682, died of the "white plague." Boston, San Francisco, and St. Louis each furnish over 1000 deaths.

NEWS AND THERAPEUTIC HINTS.

Veratrum Viride in Mania.

Any physician who has not employed veratrum viride in acute mania has missed the best agency which is available for the cure of these distressing cases. It is one of the greatest advantages a physician can have to see the feverish sufferer, under the application of this remedy, pass from absolute sleeplessness into a state of quiet rest. That many cases which would otherwise go on to death are saved by the use of this remedy is a fact beyond question. The fear which many practitioners have of using veratrum viride, on account of the varying strength of its various preparations, must, of course, be met, when the drug is employed, by the use of Norwood's tincture.—American Medical Journal.

Remedy for Chapped Hands.

The surest preventive is thoroughly to dry the hands after washing, and then to smear them with a fat free from water: *e.g.*, olive-oil or wax ointment. To cure chaps, use menthol, 1; salol, 2; olive-oil, 10; lanolin, 30. To produce a smooth and white skin use zinc oxide, 5; and bismuth oxychloride, 2.5; rubbed down with oil, 12; then add glycerin, 5; and lanolin, 30; finally perfume with rose-water, 10.

Lanolin Powder.—Lanolin is dissolved in ether, and this solution mixed with magnesium carbonate to a stiff mass, and this rubbed down with talc and starch.—Schweiz. Wochenschrift für Pharm., 38, 3; after Pharm. Zeitschrift.

Peroxide of Hydrogen in Wound with Catgut Suture.

Do not use peroxide of hydrogen in a wound in which there have been placed any catgut ligatures, unless it is intended to wash the latter out, for the reason that peroxide rapidly destroys catgut. —International Journal of Surgery.

Removal of Ear-wax.

Baerens (Regular Medical Visitor) says that in the removal of impacted cerumen as little instrumentation as possible should be indulged in. Much harm often follows the use of probes, forceps, and hooks in untrained hands. Hardened wax may be softened by the instillation of a solution of sodium bicarbonate and glycerin and water, three times a day. In syringing, the stream should be directed along the upper wall of the canal, the object being to force the water behind the plug, and not against it. If much force is used, vertigo often results.

NEWS AND THERAPEUTIC HINTS.

Intestinal Obstruction.

In very bad cases of intestinal obstruction, in which, for any reason, operation has been very long delayed, we may feel like giving the patient the benefit of the only chance that remains to him. These patients are practically unable to feel pain, and the administration of a general anæsthetic to them is exceedingly dangerous. Use local anæsthesia, rapidly open the abdomen, draw out the nearest coil of distended intestine, stitch it rapidly to the external wound, and open into the gut at once. Use hot saline injections by the rectum and intravenously. If we can thus tide the patient over a couple of days, we may later on deal with the obstruction itself.—International Journal of Surgery.

Compulsory Vaccination.

The board of health of the province of Quebec has decreed that any person who cannot show proof that he has been successfully vaccinated or has had small-pox within seven years, or unless he can establish that either he has been unsuccessfully vaccinated within six months, or that he has not been because his health would not permit, will be liable to a fine of $5 and an extra $1 for each day of delay in being done. A certificate of such vaccination must be furnished when required to the executive officer of municipal sanitary authority. Provision is made for free vaccination and for penalties for false certificates.—American Medicine.

False Labor-pains.

Dr. Bennett, of Chicago, gives 15 grains of chloral-hydrate in solution in those cases of labor where there is a severe, irritating pain without progress of great labor or with rigid os uteri. This dose often corrects the whole train of symptoms.

Modern Medicine.

NEWS AND THERAPEUTIC HINTS.

Chloroform as a Styptic.

Excellent results have been obtained from a mixture of 1 part chloroform with 50 parts water, in rapidly arresting hæmorrhage after tooth extraction.—Dr. Spaak, in Journal de Médecine de Paris.

Deafness in Childhood.

A thorough and systematic report, prepared for the census department of Washington by Prof. Allen E. Reed, of the Institution for the Deaf in Indianapolis, shows that of the 452 pupils who have at one time or another since 1890 been under instruction at the institution, 169 are congenitally deaf, 271 are adventitious, 10 are feeble-minded, and 2 dumb, but in full possession of hearing. One-third of the 452 have been taught by the speech method; the rest by the manual or sign language. The deafness of one-third of these speech-taught pupils is congenital and that of the rest adventitious, from which it is concluded that the great majority of those deaf and dumb from birth cannot be taught by means of speech.—American Medicine.

Cancer Investigation.

The Institute for Experimental Therapeutics, in Frankfort, Germany, begun in November, 1901, an investigation relating to the etiology of cancerous diseases, and considerable sums of money have been placed at the disposal of the institute by private persons. The work of the institute is so extensive that only a limited portion of its attention can be turned to this subject. It is hoped that through the investigations made here and in the Pasteur Institute in Paris, and in that of Buffalo, some definite scientific result may be attained concerning this baffling problem.—American Medicine.

NEWS AND THERAPEUTIC HINTS.

The Dietetic Role of the Microbe.

Kijanitzin asserts that animals placed in sterilized air emaciate and die in a few days. The injurious effects persist after removal from the sterile air. In breathing ordinary air the microbes inhaled are devoured by the leucocytes, and from them ferments extracted that are necessary to promote normal oxygenation. If the microbe-supply is cut off, the ferments disappear from the blood, leucomaines accumulate, and death finally ensues.

A New Embalming Process.

The Memphis Medical College, Memphis, Tenn., has for several weeks been experimenting with an embalming fluid. It is asserted that this discovery is superior to that of the Egyptians, for, while the infusion will preserve the subject for all time, as did that of the ancients, it prevents the shriveling up that followed Egyptian embalming, and it does not call for the bandages in which all Egyptian mummies were incased. The principal experiment up to this time has been upon the body of a dog, which was treated thirty days ago. To-day it is rigid, but in a perfectly natural pose. There is no trace of odor about it, nor is there any visible symptom of decay. The fluid petrifies the body. Neither arsenic nor strychnine is used in the preparation.—Philadelphia Medical Journal.

Cranberries.

The pure, fresh juice of raw cranberries, given freely, either undiluted or with an equal part of water, is an excellent means of relieving the thirst in fever, and, moreover, is markedly antipyretic. In the thirst and vomiting peculiar to cholera it is even more effective. In fifty cases in which ice and narcotics failed to make the slightest impression, cranberry-juice, in small, but repeated, doses, rapidly checked both vomiting and nausea.—Goriansky.

NEWS AND THERAPEUTIC HINTS.

Pertussis.

In the treatment of whooping-cough the most satisfactory method we have ever used is the following: Prepare a solution of alum in syrup, 1 grain to each drachm. Add 10 drops of the tincture of belladonna to 2 ounces of syrup of Tolu. Give drachm doses of these remedies alternately every hour.—Chicago Medical Times.

Sale of Quinine.

The sale of quinine in India is regulated by the English government. It is sold at the rate of 10 grains for one cent, or 48 cents an ounce retail. In Bengal alone 1,440,000 five-grain packets are sold annually. The government imported $250,000 worth of quinine a year until its cultivation was introduced. There are now 4,000,000 cinchona-trees in Bengal, and extensive plantations are found throughout the whole country.—American Medicine.

Clearing Out the Rats.

The chief of a German military establishment, presumably troubled at some time with rats, sends to the Drogisten Zeitung details of his method of dealing with the vermin, claiming for his simple idea complete efficacy. The rats are very partial to the two following dishes, which they eat with avidity, and, if we may believe our authority, is fatal to them. A pastille, or "cooky," that rats are very fond of, to their sorrow, may be prepared as follows: Cut a squill into thin slices, dry the latter and pound them up. To the powder add pulverized sugar, flour, a little salicylic acid, and enough of a mixture of glycerin and water to make a paste. Roll out, and with a tin lip-salve cover box, or a cutter the size of a silver dollar, cut up into pastilles and dry. To use, moisten with water, and dust with powdered sugar. Another dainty tidbit for the "varmints" is a fritter, prepared as follows: Chop up a fresh squill bulb into very small bits, add a teaspoonful of flour and one of milk, and make into a fritter. Have your bacon grease hot, drop in the fritter, and cook quickly. Let cool, and put where the rat can get at it. This is all that it is necessary to do for that rat.—Monthly Magazine.

A New Treatment for Hysteria.

An attack of hysteria simulating unconsciousness in a woman may be stopped by some one's taking a pair of scissors and regretfully announcing that he will have to cut all the patient's hair off in order to make applications to her head. It is doubtful whether this bluff has ever been known to fail.—Modern Medicine.

NEWS AND THERAPEUTIC HINTS.

TONSILLITIS.

Dr. J. T. Crowley, of San Francisco, Cal., writes to the Medical World that the following combination seems to be well-nigh a specific, a rheumatic tendency being present in most cases:—

℞ Sodii salicylatis, 1 ½ drachms.
Ferrous sulphate, ½ drachm.
Liq. ammon. acet., 1 ½ ounces.
Syr. Tolu, q. s. ad 3 ounces.

M. Sig.: Teaspoonful three times a day in water or milk.

BELLADONNA IN METRITIS.

The symptoms calling for belladonna in inflammation of the uterus are distended abdomen, with pains of a lancinating, digging character, or as if the intestines were clasped by some sharp claws; painful pressure, as if everything would protrude through the vulva; abdomen very sensitive to contact; face red, with heat about the head and eyes; pressive headache, throbbing carotids; pains in small of back as if it were broken; lochia suppressed, or, if there is a discharge, it is free and offensive.—Medical Visitor.

A REMEDY FOR NOSE-BLEED.

Children are occasionally troubled with bleeding at the nose, and in some instances this becomes quite alarming, especially when all known remedies fail, and the weakening flow still continues; and in this instance, as in many others, the best remedy is one of the simplest that could be tried. A celebrated physician has claimed in one of his lectures that this "best remedy" is a vigorous motion of the jaws, as in the act of chewing. In the case of a child, he recommends giving a wad of paper to chew, as the rapid working of the jaws stops the flow of blood; but why not try chewing-gum instead of paper?—Western Medical Review.

NEWS AND THERAPEUTIC HINTS.

Divorce in European Countries.

Divorce was established in Germany in 1875. From 1881 to 1885 the yearly number of divorces was about 8000, while of late years it exceeds 10,000. In England divorce was established in 1857. During the years 1858-1862 the annual number was about 200; in 1894 about 550; in 1898 about 650. In Austria, where only non-Catholics can apply for a divorce, the number of demands for divorce increased 25 per cent. in four years, and in Belgium about 20 per cent. in four years. —Philadelphia Medical Journal.

Doctors in Madagascar.

The French have begun to carry out a great work of humanity in Madagascar. The governor-general several years ago established a school of medicine and a hospital. The medical school has already turned out fifteen native physicians competent to practice medicine. The governor has therefore decreed that all branches of the medical service in the island shall be consolidated, and that hospitals similar to the one in Antananarivo, where 125 sick persons may be accommodated at one time, and where free medical service is dispensed to applicants numbering 100 to 150 a day, shall be established in the larger towns. Many natives trained for medical service will travel from one village to another distributing medicines and treating the ill. Particular attention will be given to the care of children, as the mortality among infants is actually 40 per cent. of the total deaths. Pamphlets are now being printed in the Malagasy language giving rules of hygiene. It is hoped that the measures which are taken to improve the health of the people will result in rapid increase of the population, which now numbers 2,500,000.

NEWS AND THERAPEUTIC HINTS.

Japanese Life.

The Japanese do not use milk, cows being almost unknown in Japan. Milk, an animal product, falls under the condemnation which excludes everything that has pertained to life from the list of articles used for food. Animals taken in the chase are excepted, as are fish. The Japanese mother nurses her own child, continuing sometimes up to the sixth year, though other food is given in addition after the first or second year. The main food of the Japanese mother consists of rice, fish, shellfish, and sea-weed. Wine or alcoholic products are never used. Medical men think that the large use of the products of the sea is the reason why rachitis is unknown. Of course, the Japanese know nothing about butter, cream, cheese, etc., but they make an excellent substitute from a bean, rich not only in oil, but also in nitrogenous elements. Yet consumption is common among the upper classes in Japan. Mountaineers are, however, exempt from tuberculosis. The Japanese are a small people, smallness with them being a race characteristic.

Anæsthetics, Ratio of Deaths due to.

The ratio of deaths to inhalations of anæsthetics as given by late statistics shows that one death in 16,675 occurs from ether; one in 7613 in chloroform and ether; chloroform alone, 1 in 3749.

Nourishing.

Beat the white of four eggs to a foam and stir well into a pint of cold water; flavor with a teaspoonful to a tablespoonful of whisky, wine, or brandy. Vanilla, lemon, nutmeg, or cinnamon may be used as a flavor. Give 2 to 8 ounces, as required.—Medical Council.

SHOEMAKER'S MATERIA MEDICA AND THERAPEUTICS.

There is hardly a practicing physician who would go without the new edition of SHOEMAKER'S MATERIA MEDICA if he were thoroughly conversant with the facts regarding its publication. Although his work on Therapeutics has been a favorite for years, Dr. Shoemaker was not willing to have it appear again until it had been entirely made over new. With the exception of the fact that it contains the standard drugs which are found in all Materia Medicas, it is an entirely unique and individual book from anything in print.

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F. A. DAVIS COMPANY, Medical Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

NEWS AND THERAPEUTIC HINTS.

Coffee After Dinner.

It is difficult to give an adequate reason for this practice. One explanation is that coffee tends to neutralize the effect of alcohol which may have been consumed. The practice of taking cheese at the close of a meal is justified on the ground that it aids the secretion of gastric juice and thus favors digestion. This is probably correct, for a morsel of old cheese causes an increased flow both of saliva and of gastric juice. But the coffee question can hardly be solved on a like basis. Instead of favoring digestion, both tea and coffee retard it. Sir William Roberts questions whether this delaying effect on digestion may not, after all, be a beneficial feature. He argues that the perfection of cooking tends to present us with our food in a condition which favors not merely rapid digestion, but too quick assimilation.

Syphilis in Morocco.

Raynaud says that syphilis is very common in Morocco, even far inland. The patient is kept in a dark room for forty days, without eating meat, olives, or salted food. He is given unleavened bread and sarsaparilla. He is also sent to a spring near Fez, where bathing in the sulphurous waters is advised. Here thousands of natives are seen, and it is not uncommon to hear of others who have visited the baths for the treatment of syphilitic ulcerations.—Le Caducee.

Suicide and Lynching in the United States.

Suicides and lynchings are on the increase. The total suicides last year were 7245, compared with 6755 in 1900. The lynchings were 135, compared with 115 in 1900. The legal hangings were 118, compared with 119 in 1900. The total number of deaths by violence in the United States was 7852, as compared with 8275 in 1900.—Philadelphia Medical Journal.

To Hypnotize Degenerate Children.

Judge Davis, President of the Board of Children's Guardians of Terre Haute, Ind., has permitted Professor Henry, of a Chicago school of hypnotism, to experiment upon the children in the home maintained by the board. Mr. Henry thinks that hypnotic suggestion can start a train of thought for good in the minds of children of vicious parents. Judge Davis believes that hypnotism cannot do the children any harm, and may possibly have some good results.—Philadelphia Medical Journal.

NEWS AND THERAPEUTIC HINTS.

Free Spectacles.

London has what is known as a spectacle mission for those who cannot afford to buy spectacles for themselves. On certain days each month the applicants repair to the headquarters of the mission for their spectacles. It is said the mission performs its work well, testing eyes thoroughly and giving glasses of proper strength.—American Medicine.

Anæmia.

Mercury, in many cases of anæmia, especially when chronic in character, is far preferable to iron, even when the cause is entirely removed from any venereal taint. Minute doses of the bichloride, $^1/_{30}$ grain, or protiodide, $^1/_{12}$ grain, will frequently succeed after a thorough course of iron without the desired result.—Medical Summary.

Alopecia Areata.

A young woman who had rebellious alopecia for more than a year was practically cured by washing the head twice a day with soap and then rubbing kerosene vigorously into the bald patches. They soon became covered with soft hairs which, by the end of eight months, had almost all been transformed into adult hairs.—Hallopeau, in Medical Record.

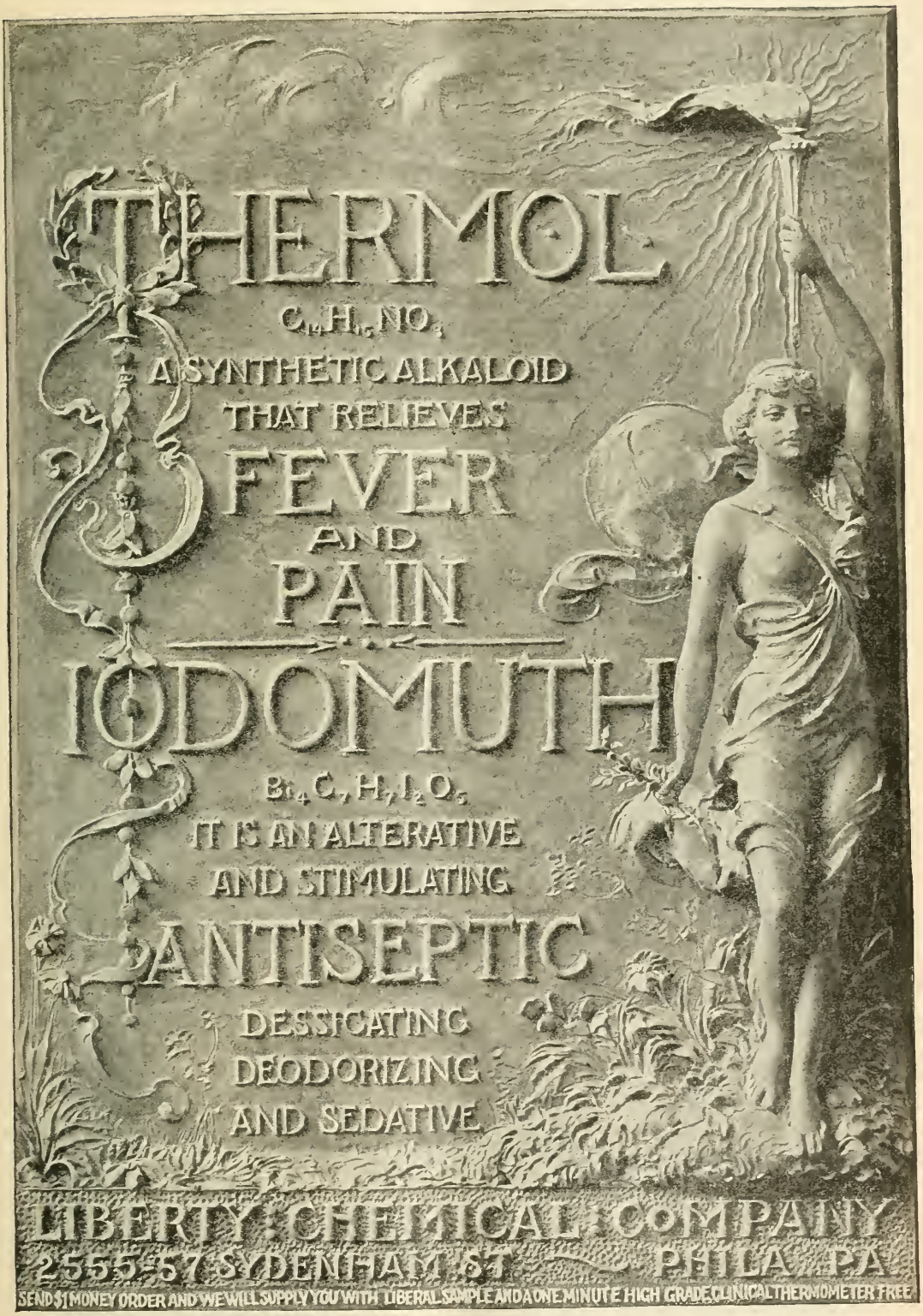
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TABLE OF CONTENTS.

Editorial.

THE URIC-ACID DIATHESIS (*Continued*).

In our last number reference was made to the fact that modern teachings tended to show that the so-called "uric-acid diathesis" and the various morbid phenomena attributed to it were, in reality, due to the toxic effects of the alloxuric bases derived from nucleins, the latter, in turn, originating from the body-cells—particularly leucocytes—and certain articles of food. Evidence was also adduced to show that conversion of these poisonous substances into harmless bodies by oxidation was a physiological function, and that the *inert* product was uric acid.

The most interesting feature next in order, especially from the standpoint of practice, is the identification of the articles of food that are liable to enhance the

production of alloxuric bases by contributing to the organism the nuclear elements from which they are derived. The results of experiments by A. E. Taylor,[1] tabulated below in abbreviated form, which illustrate the comparative effects of various forms of diet, are particularly valuable in this connection.

	Total Nitrogen.	Urea Nitrogen.	Per-centage.	Urea.	Uric Acid.	Alloxuric, or Purin, Bases.
Period I. *Mixed normal diet*, avoiding sweetbreads, liver, and brains. Body-weight (about 160 pounds) remained constant. No albumin or sugar.	20.936	19.018	90.8	40.752	0.364	0.0249
Period II. *Diet of sweetbreads*, one pair three times daily, with bread and non-proteid vegetables. No other animal proteid eaten. On third day, a three days' period of diarrhœa began, with anorexia, nausea, headache, malaise, and some abdominal pain. During this period uric acid fell to less than one-third of that of first days. .	21.541	17.741	82.3	38.017	0.871	0.0271
Period III. *Heavily proteid diet*, with bread, fruits, green vegetables, non-proteid desserts. Six eggs for breakfast; sirloin steak both luncheon and dinner; large portion of cold roast beef at midnight (in all, about 200 grammes of proteid; diet over 2500 calories). Agreed perfectly; gained three pounds. No albumin or sugar in the urine.	30.566	27.543	90.1	59.021	0.456	0.0223
Period IV. *Purely vegetable diet*, especially pease and beans, nuts and bread; no milk or eggs nor animal fat used in cooking. Weight constant. No albumin or sugar in urine.	11.874	10.934	92.0	23.430	0.462	0.0195
Period V. *Milk diet;* 2720 cubic centimeters taken daily; contained a little over 4 per cent. of proteids; 6 per cent., each, of sugar and fats, about equal to 2700 calories. Agreed perfectly. No albumin or sugar in urine.	17.921	16.899	94.3	36.213	0.284	0.0112
Period VI. *Nitrogen-free diet* (less than 0.200 grain N daily): sago, 350 grammes; sugar, 50 grammes; and butter, 100 grammes. While this sufficed to supply heat, it left only the body's tissues for its own nitrogenous metabolism. Six pounds lost; bowels moved but twice in eight days; distinct loss of strength. No albumin or sugar in urine. Prolonged rest taken.	4.380	3.611	82.4	7.738	0.273	0.0066
Period VII. *Normal diet with coffee and beer;* three cups of coffee and two pint bottles of beer daily = about 700 l.	20.797	18.636	89.6	39.935	0.721	0.0544
Period VIII. *Normal diet with coffee and no beer;* a little more coffee, but no alcoholic beverage.	20.043	18.304	91.3	39.225	0.826	0.0651

As Dr. Taylor submitted himself to the trying ordeal involved, he was able to control every detail of the investigation—an impossibility under other circumstances. The general plan of the work is referred to by him as follows: "The specific diet having been entered upon, the collection of the entire daily urine was begun upon the *third* day of the diet, and was continued for *six* successive days. The body-weight was noted before and after each period. Between these periods of different diet a mixed diet was employed, except that tea, coffee, cocoa, chocolate, and alcoholic beverages were entirely avoided. I do not use tobacco. The only exercise taken was that involved in the laboratory-work required for the estimations, which, together with other work, amounted in all to about seven hours of laboratory-work daily. Seven hours of sleep, the normal personal quota, were taken daily. The total urinary nitrogen—the urea, the uric acid, and the purin bases—were estimated daily during the six days of each period; the total nitrogen was estimated by the Kjeldahl method; the urea by the Mörner-Sjöqvist method; the uric acid by the Salkowski-Ludwig method, as taught by Salkowski; and the purin bases by the new Salkowski method."

The two prominent features of these results to which attention may be called are: First, the marked increase of uric acid, both under the use of the sweetbread diet and under a normal diet that included coffee. And, second, its limited increase under a rich proteid diet—one which the clinician looks upon as the very bane of uricacidæmics. That sweetbreads, liver, brains, kidneys, etc., are exceedingly rich in nucleins and are capable of causing a marked increase in the output of uric acid is fully sustained, but it is a question whether coffee, tea, and other similar beverages should be classed, from the clinical stand-point, among the exogenous sources of alloxuric bases. This contention seems to be emphasized by an analysis of Dr. Taylor's table, notwithstanding the fact that under the use of coffee both the alloxuric bases and the production of uric acid in his case were greatly increased.

If, in the light of the more recent researches, the increase of uric acid is to be regarded as a prophylactic process, why should coffee, tea, and kindred substances not give rise to this increased output through their recognized properties as stimulants? Under these circumstances they would no longer be direct sources of uric acid, but promoters of oxidation through excitation of the respiratory centers. The insomnia which coffee produces in persons unaccustomed to its use attests its marked stimulating powers. Dr. Taylor specifies, we have seen, that, between the experimental periods, he employed a mixed diet, "except that tea, coffee, and alcoholic beverages were entirely avoided." As there were six periods of six days each and several periods of rest before the first "coffee" period was reached, we can legitimately assume that he remained two months without using these stimulants. Abruptly, he then took coffee three times a day. That both his uric acid and his alloxuric bases under these circumstances should be greatly increased seems but normal.

Again, coffee, tea, and other beverages are said to increase leucocytosis, and thereby to indirectly give rise to accumulation of nucleins, from which the alloxuric bases are derived. Hence the high percentage of the latter under the use of these beverages. But why should an excessive daily diet, such as that outlined under

[1] American Journal of the Medical Sciences, August, 1899.

"Period III," including heavy meats, sirloin steak, roast beef, eggs, etc., also known to produce post-prandial leucocytosis, only show, under strict observation, a ratio but slightly in excess of the normal? Evidently some radical difference must exist between the physiological actions of the incriminated beverages, on the one hand, and the excessive normal diet, on the other, notwithstanding the property possessed by both of causing leucocytosis.

This leads us to inquire into the nature of leucocytosis. The prevailing view is that of Goldscheider and Jakob, who attribute this phenomenon to the stimulation of the leucocytogenetic structures—bone-marrow, the spleen, etc.—by poisons, owing to an attractive influence possessed by the latter over leucocytes. But why should this view not be reversed and the chemotactic powers be attributed to the leucocytes? Concordance with the more solidly established data would thus be obtained. Metchnikoff's mobile microphages are mononuclear and polymorphonuclear *leucocytes*; Buchner's alexocytes, the source of his bactericidal alexins, are also *leucocytes*; and the evidence in favor of the contention of these investigators, that the function of the white blood-corpuscles of the class mentioned is to protect the organism, has been overwhelming. Why should post-prandial transitional leucocytosis not represent a protective process associated directly or indirectly with the destruction of toxic products of nuclein metabolism? Under these conditions the stimulants mentioned could but raise the ratio of the uric-acid output. While enhancing leucocytogenesis, they would simultaneously increase the oxidizing powers of the organism, thus relegating leucocytosis to the position of an index of the increased activity induced.

This normally suggests a deduction which bears directly upon, and is sustained by, clinical work: *i.e.*, the fact that the morbid phenomena attributed to the so-called "uric-acid diathesis" are *due to unoxidized alloxuric bases*. This is supported by Dr. Taylor's second test. While in perfect health, he began a diet of sweetbreads, one pair three times daily, with bread and proteid vegetables. His strong organism stood this three days; the symptoms mentioned then came on,—including diarrhœa, anorexia, nausea, headache, and malaise,—which lasted the three remaining days, during which *the uric-acid ratio fell to less than one-third* of that obtained during the half of this test. Interesting also is his remark: "The symptoms closely resembled those noted in experimental *adenin* poisoning," inasmuch as adenin is one of the alloxuric bodies. But why, in view of this fact, was the "coffee" period, which also shows an average ratio of uric-acid elimination twice that of the "normal-diet" period, not attended with similar morbid symptoms? It seems clear that it is because it activated not only the metabolism of the nucleins ingested, but also that of decomposition products incident upon the excessive leucocytogenesis which the experimenter—unaccustomed to the use of stimulating beverages—had started in his organism.

These observations are in accord with the teachings of clinical experience. It is evident, if the unoxidized alloxuric bodies *are* the source of the symptoms attributed to the "uric-acid diathesis," that to suddenly place an adynamic patient—as are most migrainous and gouty subjects—under a debilitating diet is to further weaken his oxidizing powers. This does not mean that dietetic measures should not be instituted,—indeed, these are of the first importance,—but that the aim

should be to so regulate the proportion of nucleins ingested by the patient as to adjust the intake to his oxidizing powers, while enhancing the latter by the administration of appropriate remedies.

The list of foods capable of supplying the organism with an excess of nucleins is gradually becoming better defined. Prof. Albert Robin[1] recently reviewed this subject in an interesting manner. To the list already given herein—sweetbreads, brains, liver, kidneys, spleen, etc.—he added all animal foods—such as calf's feet, pigs' feet, tendons,—all foods capable of producing gelatin on boiling; the meats of *young* animals,—veal, lamb, for instance,—that are very rich in connective-tissue elements; spring chicken, squabs, etc.,—the very delicacies that are usually dealt out to convalescents! The historical treatment of Prince Bismarck by Professor Schweninger was based upon these simple precepts, which more modern scientific research sustain. Dr. Taylor also remarks in this connection: "Obviously the current use of sweetbreads during convalescence from acute gout as a 'light, white meat' is not founded upon a knowledge of its properties." Professor Robin, however, includes coffee among the pernicious beverages, caffeine being a dimethylxanthin, an intermediary between xanthin and uric acid. May this proscription not be due to time-honored custom? At any rate, I have never found it necessary to deprive a patient accustomed to the *moderate* use of coffee,—"uric-acid" cases are often met with among sufferers from disorders of the respiratory system,—while in my own case abstention from its use is followed by the so-called "diathetic" symptoms. Beef, mutton, chicken, etc.,—in brief, the meat of adult animals, all poor in nucleo-albumins,—are recommended by Professor Robin as the result of large experience; he finds them to be particularly well borne when fruits containing a natural acid—grapes, lemons, oranges, etc.—are taken simultaneously. How accurately the use of adult meats recommended coincides with Dr. Taylor's third test is emphasized by a perusal of the chart.

As to the use of remedies, the foregoing analysis of the effects of coffee, in Dr. Taylor's eighth test, confirm, if the deductions are sound, what clinical evidence has shown: *i.e.*, that stimulants markedly enhance the oxidation processes. Combining the dietetic with medicinal treatment, therefore, the two seemingly different classes of cases most frequently met with, the migrainous anæmic woman and the high-liver, are susceptible to practically the same measures: In the former, abstention from nuclein foods *only*, a *liberal* diet, gradually increased doses of strychnine, and the free use of pure water; in the latter, abstention from nuclein foods only, a *normal* diet, gradually increased doses of strychnine, and the free use of pure water. In a small proportion of cases reduction of the use of meat to once a day or a few days' milk diet—without omitting the strychnine—may be necessary to rid the organism of accumulated waste-products, when the treatment is begun. Alcoholic beverages—whisky, brandy, champagne, sherry, etc.—are always harmful, since they tend to inhibit tissue-metabolism. Of course, this only refers to cases in which organic lesions—peripheral, hepatic, renal, etc.—have not yet occurred, since all such require more active measures.

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[1] Revue de Thérapeutique Médico-Chirurgicale, January 15, 1902.

Crofton[1] states that "a uric-acid case should be treated as an anæmic case," and advises the employment of "measures employed to promote the oxygenation powers of the blood." He found the use of iron and inhalations of oxygen of great value. Referring to the use of oxygen in migraine, he says: "The benefits derived from the procedure are surprising and most gratifying, and the relief to the patient is almost instantaneous." Oxidation is evidently a strong factor in the process involved—a fact which suggests that our aim should be, in "uric-acid cases," *to adjust the intake of nucleins to the patient's oxidizing powers, while developing the latter by the judicious use of strychnine.* That this agent actively stimulates oxidation has been demonstrated by Kionka, Mosso, Obermeier, and other investigators, while its value as a respiratory stimulant has been especially emphasized by H. C. Wood,[2] who also considers it as "the best of all tonics in general functional atony."

C. E. de M. Sajous.

Cyclopædia of Current Literature.

ALCOHOL, THE HEREDITARY EFFECTS OF.

Professor Demms, of Stuttgart, Germany, gives the following record of the result of his observations of ten families of drinkers and ten temperate families for a period of twelve years:—

The 10 drinking families produced in those twelve years 57 children. Of these, 25 died in the first week of life, of weakness, of convulsive attacks, or of œdema of the brain and its membranes. Six of the children were idiots; 5 were stunted in size, and were of dwarfish growth; 5, when older, became epileptics; 1, a boy, had grave chorea, ending in idiocy; 5 had inherited diseases and deformities, such as chorea, hydrocephalus, harelip, and club-foot. Two of the epileptics mentioned became, by inheritance, drinkers. Only 10 of all these 57, or 17.5 per cent., showed during youth normal disposition and development of body and mind.

The 10 temperate families produced in twelve years 61 children. Of these, 5 died in early infancy of weakness; 4 in later years of childhood had curable nervous affections; 2 only showed inherited nervous defects. The remaining 50, or fully 81 per cent., were normal in every way, developing well in body and mind.

The statistics of alcoholic heredity gathered by Legrain, of Paris, are especially interesting. Out of 814 children of alcoholics observed by him, 322, or 40 per cent., were degenerates. Seventeen per cent. of these were epileptic or hysterical. By adding 174 who had not strength to survive, but died of infantile weakness and debility, the percentage runs up to 61. Four per cent. showed distinct moral impurity. The number of children who became alcoholic is not given. J. M. French (Medicine, Jan., 1902).

ANGIOMATA.

Angiomata are very peculiar and remarkable structures. Apart from the big nævi and angiomata with surgical relations there are:—

1. The pin-point, capillary angioma, of which few skins lack examples. They

[1] *Loc. cit.*

[2] "Therapeutics: Principles and Practice," eleventh edition.

may be numerous, but they are rarely disfiguring. They appear and disappear.

2. The solid, nodular nævus, ranging from 1 to 4 or 5 millimeters in diameter, forming a definite little tumor, either sessile or pedunculated, and very common on the back.

3. The spider angioma, formed by (*a*) three or four dilated veins, which converge to and join a central vessel or (*b*) which unite at a central, bright-red nodule projecting a little beyond the skin. They are very common.

As examples may be found on the skin of nearly everybody, these three varieties may be regarded as almost normal structures.

When the punctiform or spider angiomata increase greatly in numbers they are very disfiguring. An individual spider angioma may increase in size, or they may become very numerous.

Angiomata have a curious relationship with affections of the liver. In cirrhosis, in cancer, in chronic jaundice from gall-stones, spider angiomata may appear on the face and other parts. They may be of the ordinary stellate variety, like the stars of Verheyen on the surface of the kidney, or the entire area of the star may become diffusely vascularized, so that there is a circular or ovoid territory of skin looking pink or purple, owing to the small dilated venules. A dozen or more of these may appear on the trunk, or even large ones may appear. And, last, in a few cases of disease of the liver large mat-like telangiectases or angioma involving an inch or two of skin, and looking like a very light birth-mark, but which had appeared during the illness, have been seen. The skin was not uniformly occupied with the blood-vessels, but they were abundant enough on the deeper layers apparently to give a deep change in color and to form very striking objects. The dilated venules on the nose and the chaplet of dilated veins along the attachment of the diaphragm are not infrequently accompaniments of the spider angiomata in cases of disease of the liver.

The spider angiomata has been recently seen to appear in the face in a case of catarrhal jaundice. Osler (Johns Hopkins Hosp. Bull., Nov., 1901).

APPENDICITIS, SUBPHRENIC ABSCESSES AFTER.

Among the 179 cases of subphrenic abscess collected by Maydl, 23 were secondary to appendicitis. Lang found 26 among 176 cases of right-sided subphrenic disease, and Sonnenburg observed 9 subphrenic abscesses among 600 cases of appendicitis. In 350 of the patients there was an abscess around the diseased appendix, and nine of these patients had right-sided subphrenic abscess ($2\,^1/_2$ per cent. of the abscess cases). Two patients have been personally operated upon for subphrenic abscess among 91 cases of appendicular disease that have occurred within the past year on the surgical service at Mount Sinai Hospital.

Subphrenic inflammatory processes secondary to disease of the vermiform appendix may occur in one of three ways:—

1. As a localization in the right or left subphrenic region of a general systemic infection,—the infectious agents being carried to the subphrenic region by the blood-current. Here the process is secondary to a generalized infection, and hence is not considered in this paper.

2. As a localized abscess-formation in the right or left subphrenic region, a part of a general purulent peritonitis

with foci of suppuration in various parts of the abdominal cavity. This variety is infrequent, as the patients generally die before encapsulation of the abscess can occur.

3. As a local process by direct extension, or through the lymph-channels, from disease in or around the vermiform appendix. This is the most frequent variety.

Several modes of onset are characteristic:—

(*a*) A few days after the acute symptoms of appendicitis have been relieved and the temperature has fallen to the normal, the patients begin to complain of pain in the lower part of the right chest, the temperature begins to rise, the area of liver-dullness is found to be somewhat enlarged, there are friction-sounds over the hepatic region, and tenderness in one or two intercostal spaces. There may be slight or well-marked jaundice. Within a few days the pain over the liver becomes less, while the signs of fluid become evident.

(*b*) Before the acute symptoms of appendicitis have entirely subsided, although the local symptoms are much improved, the daily temperatures begin to take on a remittent type, and the patients begin to lose flesh and strength rapidly. These patients look very ill from the beginning. They do not complain of much pain, although they may have tenderness in the lumbar region; the most marked symptom is the rapid loss of flesh and strength. No further physical signs may be discoverable until the bulging of the abscess in the lumbar region is found.

(*c*) After having recovered from the attack of appendicitis in a satisfactory manner, some of the patients never regain their former health. Without any change in the temperature, respiration, or pulse, the patients complain of continual slight pain in the right chest. The pain persists for weeks or months; physical examination and aspiration of the right chest result negatively. The patients never look very ill. After a varying length of time, the presence of fluid under the diaphragm, and perhaps also in the pleural cavity, is discovered by means of physical examination and the aspirating needle. C. A. Elsberg (Annals of Surgery, Dec., 1901).

APPENDICITIS, THE CAUSE OF DIFFUSE PERITONITIS COMPLICATING.

Peristaltic motion of the small intestines is the chief means of carrying the infection from the perforated or gangrenous appendix to the other portions of the peritoneum, changing a circumscribed into a general peritonitis. This can be prevented by prohibiting the use of every kind of food and cathartics by mouth, and by employing gastric lavage in every case in which there are remnants of food in the stomach or in the intestines above the ileocæcal valve, as indicated by the presence of nausea, vomiting, or meteorism. The patient can be supported by the use of concentrated, predigested food administered as enemata not oftener than once in four hours, and not in larger quantities than 4 ounces at a time.

This form of treatment, when instituted early, will change the most violent and dangerous form of acute perforative or gangrenous appendicitis into a comparatively harmless form.

Cases of perforative or gangrenous appendicitis with beginning general peritonitis can usually be carried through the acute attack safely with this method. In all cases of this class gastric lavage should be practiced in

order to prevent the absorption of decomposing material from the alimentary canal. In cases of doubtful diagnosis this form of treatment should always be employed. It will prevent a large proportion of the most troublesome complications and sequelæ of appendicitis, such as ventral hernia, fæcal fistulæ, extensive adhesions, etc.

The patient should be permitted to recover fully from his acute attack before an operation is performed, except in cases encountered within the first thirty-six hours after the beginning of an attack or in case of the formation of a superficial circumscribed abscess. It often requires but a small amount of any kind of food to change a harmless circumscribed into a dangerous diffuse peritonitis.

The treatment does not protect the patient against a subsequent attack. It does not contra-indicate the removal of a diseased appendix before the septic material has extended beyond this organ. It is indicated in all intra-abdominal conditions in which it is desirable to prevent the distribution of septic material by means of peristaltic motion. The laity should be taught to stop feeding and giving cathartics to patients suffering from intra-abdominal diseases. A. J. Ochsner (Amer. Surg. and Gynec., Jan., 1902).

ARTHRITIS, PNEUMOCOCCIC.

From an observation of a large number of cases of pneumonia it is concluded that the pneumococcus is capable of producing very serious lesions in other parts of the body than the lungs. Arthritis as a complication occurred in 7 patients out of 817 cases of pneumonia: equal to about 1 per cent. Of these 7 cases, 4 recovered and 3 died. In all 7 cases the pneumonia was right-sided, and the joints affected were all on the right side. This was probably only a coincidence, although the fact is striking.

In some cases of pneumonia a slight redness and pain have been observed also in the shoulder-joint of the side affected, which has subsided with the crisis. The joint affection may either precede the lung symptoms or follow the crisis, or develop intercurrently. In Liverpool alcohol seems to decide in a great measure the severity of the attack and the prospect of recovery.

The only treatment is early evacuation of the pus if it can be reached. Nathan Raw (Brit. Med. Jour., Dec. 21, 1901).

BICYCLING: ITS INDICATIONS AND CONTRA-INDICATIONS.

As bicycling involves an extraordinary consumption of energy and is accompanied by relatively slight sensations of fatigue, its place in the treatment of obesity seems to be theoretically established. Bicycling also diminishes the quantity of sugar in the urine in diabetes. In slight degrees of anæmia bicycling is of advantage as a stimulus to metabolism; in severe cases this form of exercise makes such demands upon the heart that it is contra-indicated. The use of the bicycle favors assimilation in chronic obstipation. Many writers have noted happy results from the adoption of wheeling by neurasthenics. L. Zuntz (Fortschritte d. Med., Sept. 22, 1901; Cleveland Med. Gaz., Dec., 1901).

CARBOLIC-ACID POISONING, ALCOHOL AS AN ANTIDOTE IN.

Alcohol will prevent and remove the caustic and poisonous effects of carbolic acid.

The primary step in poisoning is to

wash the stomach out with alcohol; then whisky may be given hypodermically with the idea of neutralizing the acid in the blood. Other heart-stimulants may be required. As the acid is quite rapidly taken up into the blood, it has been suggested that no treatment is complete without bleeding, but that has not been done to any great extent.

Alcohol is the most perfect, the most certain, and the most handy antidote to carbolic acid. G. W. Sargent (Therap. Gaz., Dec. 15, 1901).

CONVULSIVE TIC.

Very many of these cases are habit cases, induced by some trivial local source of irritation or reflex influence not of central origin. In such, static electricity plays a double rôle, and is uniformly successful if applied early. (1) It lessens the irritability, and (2) acts as a powerful suggestive influence when systematically employed.

Most cases of central origin are not due to any traceable organic defect, but are induced by functional derangement. Such are capable of being cured if not of too long standing. For treatment, a metal electrode covering the affected muscles is applied and held in position with the hand, and the wave-current is employed with as long a spark-gap as can be used without causing painful muscular contractions. Sparks to the region will also render the results more effective in some cases. If the condition is suspected to be of central origin, a large electrode to the back or abdomen should be used, as in epilepsy, for an additional fifteen minutes for its general effect. Under this *régime* there are few cases of not more than two years' standing that will not yield. W. B. Snow (Jour. of Electrotherapeutics, Dec., 1901).

DIPHTHERIA ANTITOXIN IMMUNITY.

As diphtheria antitoxin is practically harmless, all exposed persons should receive an immunizing dose in proportion to age. Two hundred and fifty units should be given to children under two years, and 500 to all others. The immunity will last for at least three weeks, provided a reliable antitoxin is used.

All exposed persons should be removed from infected surroundings, either by thorough disinfection of their own quarters or by removal to other places. If this be impossible, the immunizing doses should be repeated every third week. H. D. Jump (Phila. Med. Jour., Jan. 11, 1902).

DIPHTHERIA, POST-SCARLATINAL.

Conclusions from investigations regarding post-scarlatinal diphtheria: 1. That it is advisable to cultivate all cases of rhinorrhœa—apart from that of the acute stage—and otorrhœas in scarlet-fever cases, especially in hospital practice. 2. That bacilli, when found at all resembling the diphtheria bacillus, must, in the present stage of bacteriological knowledge, be regarded as a modified variety of that organism, bearing in mind that their staining properties are often the only means of diagnosis available, the clinical symptoms in this class of cases being, for the most part, absent. 3. That systematic isolation of these rhinorrhœas and otorrhœas is not only justified, but advisable. 4. That such isolation may be reasonably expected to reduce the post-scarlatinal diphtheria incidence. 5. That it is an open question whether such mild cases require antitoxin treatment. Even assuming that many of these cases unassociated with general symptoms have not the disease themselves, but have

had the bacillus simply grafted on to an ordinary coryza or cold, or on to an existing rhinorrhœa or otorrhœa, none the less it is highly important that they should at least be separated from the healthy. Similarly the otherwise healthy subjects of nose or ear discharge containing diphtheria bacilli may reasonably be held to be pathogenic to others. 6. That these discharges, unassociated with sore throats or symptoms, and therefore easily overlooked, may be the cause of the often unaccountable outbreaks, and the persistence of the disease among school-children. E. H. Williams (Brit. Med. Jour., Dec. 21, 1901).

DUODENAL ULCER.

The medical treatment of duodenal ulcer should be carried out with the same persistence and care as are needed in treating ulcers of the stomach. Surgical treatment may be called for: (1) when an acute ulcer perforates, (2) when subacute or chronic perforation leads to periduodenal or subphrenic abscesses, (3) in chronic ulcer when pain and gastrorrhagia or enterorrhagia are persistent and disabling, and (4) when cicatricial contraction and induration or periduodenitis have caused narrowing of the caliber of the gut and dilatation of the stomach or of the stomach and that part of the duodenum behind the stricture. B. G. A. Moynihan (Lancet, Dec. 14, 1901).

FRACTURED PELVIS, WITH RUPTURED BLADDER, AND CASES OF RUPTURED URETHRA.

The principles which should guide one in the treatment of these severe injuries are that, if the symptoms point to an injury to the bladder in the anterior wall, an attempt should be made to close the rent in this situation in the same way that wounds of the posterior wall are closed. Owing, however, to difficulties connected with the position of the wound, if at all low down, this may be impossible, in which case—and, indeed, in any case—it is essential to prevent extravasation and to drain the bladder by a perineal route. This is best done by a tube passed through the internal meatus and out at the situation of the urethral rupture, if such exist. In case the condition of the patient will allow of a further attempt to restore the urethral canal by suture after perineal dissection, then the perineal tube should be brought out, if possible, through an incision in the floor of the membranous urethra behind or on the bladder-side of the line of suture. If this can be done satisfactorily, it is better not to leave a catheter along the whole urethral route. If the conditions will not allow of the suturing of the torn urethra at the time, then the perineal tube must be brought out through the open or torn end of the proximal urethra, and this perineal opening may be utilized at a later stage for the readier passage of a catheter along the penile urethra into the bladder. Further, careful and efficient provision should be made for the drainage of the prevesical space and surrounding area in view of the probable subsequent leakage of urine. If necessary, tubes should be brought out under one or both pubic rami at the perineum by cutting on a sound passed down from the suprapubic incision. In the possible event of failure to maintain complete asepsis and if subsequent suppuration follow, it may be necessary to open abscesses in the buttocks and in various situations.

In some cases of ruptured urethra by direct violence without fracture of the

pelvis it sometimes happens that, owing to extravasation of urine and suppuration, from delay in treatment, it is impossible to deal with the rupture by suture at the time of the patient's admission into the hospital. In such a case, after the immediate relief of the extravasation and its results by free incision and the perineal drainage of the bladder, the difficulty of the wide separation of the torn ends may be lessened later by a free detachment of the distal spongy portion, together with the supporting corpora cavernosa from the front of the pubes and the partial separation of the suspensory ligament of the penis. In this way the distal ruptured end of the urethra may be brought down from one to two and a half inches, and the union of the two ends may be successfully accomplished. This liberation of the urethra with its supporting corpora cavernosa, as a whole, is easily and quickly done, and is far preferable to trying to detach the distal spongy urethra from its supporting structures, and will probably give that amount of increased apposition and relief of tension which may insure satisfactory union, and, if any difficulty occurs in bringing the ends of the urethra together, this maneuver should be done at once. C. J. Bond (Lancet, Nov. 23, 1901).

HÆMATURIA, GELATIN IN.

An ounce of normal saline solution to which 2 per cent. of pure gelatin is added and given subcutaneously, together with the internal administration of 1 drachm of a 10-per-cent. gelatin solution, has been very effective in relieving a personal case of hæmaturia in a young woman 25 years of age. Where a nephritis exists, the internal administration of the 10-per-cent. solution should be avoided, as hæmoglobinuria is increased and renal casts appear in large numbers, and danger of uræmia is induced by such large doses.

But, when given subcutaneously with an interval of twelve or twenty-four hours, the hæmorrhage from the kidneys or nose stops immediately.

Some patients suffer considerable pain from these injections, while others do not. No abscesses have resulted, because the solutions were rendered aseptic and the injections were given under careful antiseptic precautions. George Duffield (Harper Hospital Bull., Dec., 1901).

HEART, SUBACUTE DILATATION OF.

In subacute dilatation of neurotic or anæmic young people, where baths and exercises are not available, nutrients—like malt, iron, quinine, and the alkaloids of nux vomica—may check the dilatation and restore the heart's tone. In general, strychnine or brucine, in $^1/_{60}$- to $^1/_{30}$- grain doses are good nerve-tonics, but, as they contract both heart and arterioles, are undesirable for continuous use. T. E. Satterthwaite (Medical News, Dec. 28, 1901).

HERNIA EPIGASTRICA AND FATTY TUMORS IN THE EPIGASTRIUM.

At one or more points the abdominal wall becomes weakened and less able to withstand increased abdominal pressure. The points generally correspond to the site of passage of vessels through the anterior sheath of the rectus muscle or the immediate vicinity of the linea alba. Prolonged tension and atrophy of tissue in these areas furnish small openings in this sheath through which a small portion of properitoneal fat is forced. This is a slow process, but when once established it tends to progress until a small mass of fat has appeared external to the aponeurosis. There may or may not be

a portion of peritoneum pulled forward by the fibrous tissue which connects the fat and peritoneum. Thus, one has the formation of a fatty tumor which has many of the characteristics of a hernia, and may be the forerunner of such a condition. Such a tumor may be reduced through the ring, or this external mass of fat may be augmented and connected with deeper fat only by a narrow neck, and thus become irreducible. The size of these tumors varies, but they are usually small. It is probable that properitoneal fat is of much importance in the formation of herniæ in part of the abdominal wall. These tumors are probably constant when once formed. They may remain unchanged, or may aid in the formation of a true hernia.

It is probable that most epigastric herniæ are preceded by a condition which, at one time, could be considered only as a fatty tumor, such as has just been described. In time this mass may pull forward a pocket of peritoneum into which omentum may enter, or an increased abdominal pressure may serve to increase this depression. Thus, omentum, and eventually intestine, may be forced through the abdominal wall, and true hernia formed thereby. Original depressions, or pockets, in the peritoneum are not sufficient to give rise to hernia. The essential feature is a giving way of muscles and fasciæ of the abdominal walls. The mass of properitoneal fat covering such a hernia may be slight or considerable.

If one is on the lookout for these cases in the course of an examination, they will usually be discovered. This condition should be thought of in all cases where the symptoms, whether subjective or objective, are referred to the stomach or intestines, or to a tumor of any sort in the epigastrium. The conditions which might arise for differential diagnosis whenever symptoms are referred to this region are: All diseases of the stomach; pain referred to the epigastrium and vicinity as suggesting, furthermore, biliary calculus, inflammation of the gall-bladder, renal calculus, ulcers of the duodenum, diseases of pancreas. Tumors in this vicinity should suggest fatty tumors limited to the subcutaneous tissue and tumors in the vicinity of the umbilicus, such as gumma, carcinoma, sarcoma, cysts of urachus, hydatid cysts, dermoid cysts, and fibroma associated with the terminations of nerves. Caries of the lower end of the sternum or intercostal cartilages may be attended by small pus-collections which resemble these herniæ.

If the hernia causes no trouble, no treatment is indicated, for it may never be the source of any annoyance. If symptoms are present, operation offers the only means of certain relief, and this measure should be suggested, provided there are no complications which would contra-indicate surgical intervention. Trusses and swathes do not retain the herniæ satisfactorily after reduction, and such treatment only aggravates the condition where the tumor is irreducible. In extreme cases of local pain without objective signs, where a hernia is suspected, an exploratory operation is justified. It is very important to free the omentum from all adhesions. Recurrence is unusual. H. A. Lothrop (Boston Med. & Surg. Jour., Dec. 5, 1901).

HYDROCELE IN INFANTS.

In the treatment of hydrocele in infants a lotion of ammonium muriate, 10 grains to 1 ounce of water, should be applied constantly to the scrotum on lint, and under its use the fluid may disap-

pear in a week or two. If, however, it does not disappear, then the distended tunica vaginalis should be tapped with the trocar and cannula and the fluid removed, the tapping being repeated if it becomes filled up again. This usually brings about a cure of the disease, but, if this should fail after tapping, a few drops of tincture of iodine, carbolic acid, or alcohol may be injected. Radical operations, such as dissecting out a portion of the sac, are rarely required in the treatment of hydrocele in infants or children. H. R. Wharton (Amer. Jour. of the Med. Sciences, Jan., 1902).

INSECTS IN THE SPREAD OF DISEASE.

When one comes to consider how insects may aid the dissemination of disease, these possibilities present themselves:—

1. Insects may carry from place to place disease-producing micro-organisms which have collected upon their bodies and limbs, and occasion infection directly by alighting upon wounds, and indirectly by alighting upon foodstuffs. It is very likely the common house-fly that is most culpable in this direction.

2. Insects may carry within their bodies germs of disease which have entered with the food, and which may subsequently be deposited elsewhere with the fæces. This has been demonstrated in connection with tuberculosis, where tubercle bacilli, live and virulent, have been detected in the fæces of flies that have been fed upon tuberculous sputum. Such infected fæcal matter, being deposited where it directly or indirectly infects the individual, becomes a matter of evident importance.

3. Suctorial insects, by taking blood containing parasites from the bodies of diseased animals, may carry these upon their proboscides into the next animal bitten, directly and immediately infecting it.

Many cases of anthrax have apparently been brought about by suctorial flies. It has also been repeatedly stated that plague may be propagated by such direct infection from the bites of fleas. In certain parasitic diseases it has been clearly demonstrated that the bites of insects are accompanied by direct infection.

4. Insects may take infectious germs into their bodies and transmit them to their offspring, whose bites are infectious. The disease in which this is best seen is the Texas fever of cattle.

5. Insects may take into their bodies parasitic organisms which there undergo a further development, the insect acting either as an intermediate or a definite host, and transmitting the parasites to other animals in some changed form in which they are infective. As illustrating this form of parasitic disease, the malarial infections of mammals and birds stand pre-eminent.

A second important affection in which the mosquito appears to play the part of a definite host is yellow fever.

A third disease in the transmission of which insects are concerned is filariasis.

6. The insects may become infected with pathogenic organisms, die, fall into foodstuffs, and thus impart infection to man.

The probability of this being an important source of infection is not great, as such accidents are rare. When one remembers, however, that Yersin and Nuttall have found that flies become infected with plague and die of the disease, the danger that might lurk in such an insect cadaver need not be magnified Joseph McFarland (Medicine, Jan., 1902).

JAUNDICE, SURGICAL SIGNIFICANCE OF.

Jaundice is not to be expected in uncomplicated gall-stone disease. When due to a stone obstructing the common duct it gives the history of previous attacks of gall-stone colics, varies greatly in intensity in the early stage, and these changes are accompanied by colicky pains. There can usually be obtained an early history of some little fever, and at times chilly sensation or sweats. The gall-bladder cannot be palpated. In malignant disease the loss of flesh before the jaundice, the age of the patient, and the unchanging (except for the worse) of the icteric hue, with a distended and, perhaps, nodular gall-bladder or adjacent tumor, complete the clinical picture. Jaundice from chronic pancreatitis will probably be confused with malignant disease. The possibility of its existence leads to an examination as to the history, the age of the patient, and the duration of the symptoms. The various forms of cirrhosis accompanied by jaundice are to be distinguished by the physical examination of the liver, and, occasionally, the size of the spleen. Catarrhal jaundice is a disease most common in young adults, and is usually due to an extension of a mild infection from the gastro-intestinal tract. It is sometimes seen in an epidemic form. The age of the patient, slow pulse, lack of general symptoms, and short duration make the differentiation easy. Catarrhal jaundice may, in isolated cases, complicate appendicitis, pneumonia, cancer of the stomach, and a host of other common diseases; but, as in these cases it is usually incomplete and transient, it does not long mask the primary source of disease. W. J. Mayo (Northwestern Lancet, Jan. 1, 1902).

KIDNEY, A NEW METHOD OF ANCHORING THE.

The incision extends from the lower rib to near the crest of the ilium, a hand's breadth to the right of the spinous processes of the vertebras. The fatty capsule is reached just anterior to the outer border of the quadratus lumborum, and is opened and a large part of it trimmed away. The kidney is pushed into place by a cylindrical pad placed under the abdomen. When the kidney is well exposed, an incision is made through the proper capsule from one process below the upper pole to a point two centimeters above the lower pole. This incision is placed vertically on the posterior surface near the convex border. The capsule is stripped loose from the kidney-substance from a distance of three-fourths of an inch anteriorly and posteriorly to the incision of the capsule. From the upper and lower extremities of the vertical incision a perpendicular incision three-fourths of an inch long is made through the capsule, this giving two flaps of capsule three-fourths of an inch wide by about two and one-half inches long. Next, a strip, the thickness of one's little finger, of the other border of the quadratus lumborum muscle is split off from the remainder of the muscle, the fibers being separated by the handle of the scalpel. This separation extends from the muscular attachment to the twelfth rib downward for two and one-half inches, or the slit in the muscle is made as long as the length of the capsular flaps before described. Next, an artery-forceps is passed through the slit in the muscle, made to grasp the free border of the posterior flap of the kidney-capsule, and then withdrawn, bringing the flap of the kidney-capsule through the slit in the muscle. The

two capsular flaps are next brought together over the bundle of muscular fibers, thus isolated from the border of the quadratus lumborum, and stitched together with a running suture of fine chromicized catgut, the needle being allowed to penetrate the muscular bundle at two or three places. The lumbar wound is next closed by tier sutures of catgut, the skin wound being closed with horse-hair. B. G. Davis (Amer. Medicine, Jan. 11, 1902).

LARYNGITIS, ACUTE.

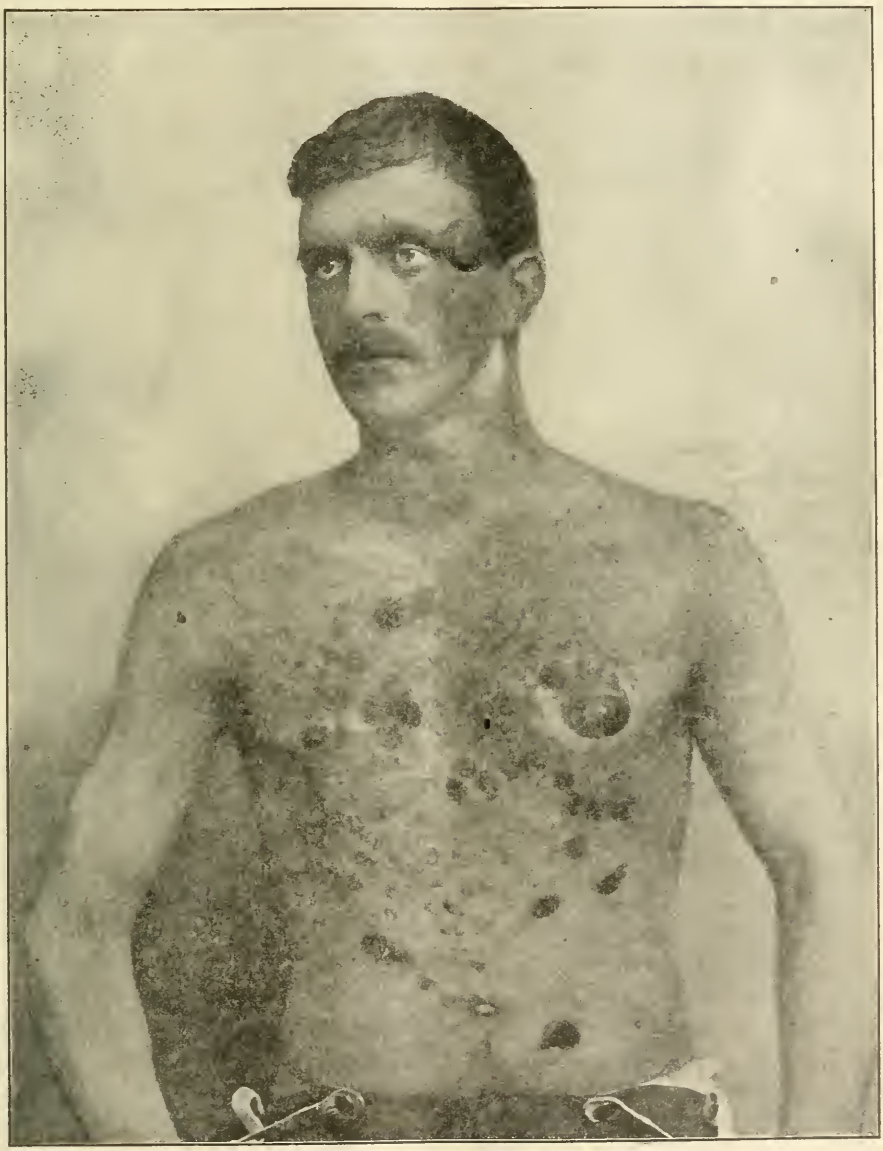
In acute laryngitis, without œdema, inhalations of steam containing camphor-menthol will often in the early stages aid considerably in aborting an attack, while, after the disease has existed for a day or so, the addition of benzoin will aid in allaying the cough and irritation. When œdema is present, hot inhalations are of little value, and frequently increase the extent of the swelling, while an iced spray of $^1/_2$- to 1-per-cent. camphor-menthol, alternating every half-hour, or even fifteen minutes in cases where the dyspnœa is severe, with a spray of the suprarenal gland, will produce a rapid change in the appearance of the laryngeal swelling and frequently relieve the dangerous symptoms. L. S. Somers (Merck's Archives, Dec., 1901).

LEUKÆMIA, LYMPHATIC, APPARENTLY DEVELOPING OUT OF HODGKIN'S DISEASE.

The illustration of the case was taken but a few days prior to the clinical record. It fairly demonstrates the topography of the multiple formations. The general tint of the skin was ruddy, as though sun-burned, while the areas upon the chest were as brown as burnt sienna. The initial lesion, situated on the left side of the face, occupying the upper part of the temporal, the lower part of the frontal, and the exterior half of the supra-orbital regions, formed an oval protuberance, with its long diameter extending from a point beneath the eyebrow to a point beyond the hairy portion of the scalp, where the individual hairs were raised like the spines of a porcupine. Its greatest length was nine, and its greatest width ten, centimeters. It was non-adherent beneath, sliding readily with the skin; the border was well defined, and its dusky hue was without transition or the slightest erythematous tint, which was in keen contrast with the normal epidermis. The whole growth was hard and elevated above the contiguous skin. The entire surface was not only distinguished by its cyanotic tinge, but by numerous vibices: some in streaks, others cruciform. In the profile of the right eyebrow were two definite nodules, about the size of a pea, freely movable, and in keeping with the normal color of the skin.

The center of the left cheek bore a deep-seated infiltration three and one-half to four centimeters in diameter, presenting an unaltered hue, except at the center, which bore a tawny shade. The face lesions were four in number; the scalp was in nowise involved. Seated upon the body over the sternum were two lesions, each measuring ten to twelve millimeters. The whole chest and back were mottled, showing numerous, well-defined pigmentary stains, and variegated blotches of different shapes and sizes. These differed in size from a pea to a twenty-five-cent piece, and in some localities coalesced. They usually presented a circular form. This was especially true of the large ones; the smaller were frequently misshapen,

sometimes grotesque. The prevailing color was a chocolate yellow. Barring the discolorations, the epidermis was seemingly normal. There was a decided hypertrophy of all the prominent superficial glands. The first to show any appreciable increase were two anterior to the left ear, just above the parotid. The post-auricular of the left side was the size of a hazel-nut, and very sensitive. The post-cervical soon assumed the dimensions of a black walnut, but



Lymphatic Leukæmia. *(G. W. Wende.)*

(American Journal of the Medical Sciences, December, 1901.)

was not specially sensitive. The entire cervical group and the submaxillary glands were so enlarged as to be palpable. The glands of the trunk, with the exception of the epitrochlear and inguinal, were more or less involved, and possessed uniform sensitiveness. The left axillary was the largest, the size of a walnut. On the whole, this hypertrophy of adenoid tissue was greater about the head and neck than upon the trunk, and less upon the lower extremity. The magnitude of the glands of the right side was not more than one-half that of those on the left side. G. W. Wende (Amer. Jour. of the Med. Sciences, Dec., 1901).

LOCOMOTOR ATAXIA.

This disease should be recognized in the pre-ataxic stage. When the patients are seen in the beginning, rheumatism is often mistaken for it. One sign which is not pathognomonic, but simply an aid in diagnosis, is ulnar analgesia, noted by rubbing the ulnar nerve in the ulnar notch. Along with the ulnar analgesia is very frequently found marked diminution in pain-sense throughout the whole territory. Fraenkel's sign is also an aid in diagnosis. If the thigh is extended at right angles to the body, the leg can be brought up in a perfectly straight line. The usual angle that the leg makes in that position is not manifest; the muscles are in an hypnotic condition. In other words, there is a lack of muscular tone.

In very many of these cases there is an exaggeration of the abdominal reflex. D. R. Brower (Interstate Med. Jour., Aug., 1901).

The ocular symptoms are personally believed to be the earliest symptoms of the disease. They are: (1) strabismus, or squint; (2) ptosis, or drooping of the eyelid; (3) the fixed pupil (Argyll-Robertson pupil); (4) inequality of the pupils; (5) optic atrophy.

1. The strabismus often comes on suddenly. It is very likely to be temporary. It may last but a few days or weeks, and may recover as suddenly as it came on. It may produce double vision. Any of the muscles may be paralyzed; therefore the squint may be in any direction. Although usually temporary, the squint may be permanent.

2. Ptosis. The ptosis of tabes may be single or double; generally it is single, only one lid drooping. The ptosis, like the squint, may be temporary or permanent.

3. The fixed, or immobile, pupil. On looking at the pupils, no abnormality may be observed. Upon covering them with the hands, however, they do not dilate, nor on exposing them to a bright light do they contract. They are fixed —immovable. (The do diminish in size, however, on convergence; this is the Argyll-Robertson pupil.)

4. Another pupillary symptom is seen in tabes, namely: inequality. This is generally due to the contraction of one pupil. The vast majority of tabetic patients have one or other of these pupillary symptoms. Berger claims that 97 per cent. of cases of locomotor ataxia show some pupillary symptom.

5. Optic atrophy. This produces more or less failure of sight. The atrophy is "gray," and it is "primary." The retinal vessels are not affected in size.

A patient, in adult life, consults his physician for a suddenly-appearing squint, or ptosis, or for an optic atrophy, and he may have had no pains or other noticeable symptom of tabes. If no cause is discovered for these eye-symp-

toms, one is certainly justified in suspecting locomotor ataxia.

Neurologists and ophthalmologists the world over are insisting more and more upon the importance of these ocular symptoms as being among the earliest indications of the disease. J. T. Duncan (Canadian Practitioner and Review, Sept., 1901).

First the general health of the patient should be brought up to its maximum degree of improvement. This is accomplished by absolute rest in bed, combined with massage, electricity, tonics, and overfeeding. Later, after the patient has gotten about, special exercises designed to re-educate the muscles are prescribed, the patient following, at the same time, a partial-rest schedule.

A lukewarm to a warm bath is given in the morning before breakfast, followed first by a brisk rub with coarse towels, and then a gentle superficial massage with 50-per-cent. alcohol. The bath should be given by an assistant, and a reaction should be certainly established. When the bath is taken unassisted, it is apt more often to do harm than good. Any exercise before breakfast, soon after awakening, has always an injurious effect, even among robust subjects. Massage is ordered once or twice a day. General heavy movements should be used, with especial attention to the back and legs. In most cases who can afford it, the slowly interrupted faradic current to the principal motor points for an hour is advised. No educational or Swedish movements are given for some time. The average patient should be given a month of rest before instituting this part of the treatment.

The diet consists of the usual nourishing foods. Large quantities of milk are ordered, and the patient is encouraged to eat abundantly in the hope to put on weight.

The blood is to be studied carefully before instituting treatment, and often during its progress; one can thus more intelligently follow the improvement made.

The time spent in bed varies according to the rapidity with which the patient takes on fat. It is best to increase the weight at least ten pounds if possible before relaxing the absolute rest. At the end of a month or six weeks the patient is permitted to get up very gradually, and by degrees he is permitted to remain up longer, increasing the time from day to day. Fraenkel advises against any form of gymnastics during the treatment.

The educational movements are now begun. This phase of the treatment has for its object the improvement of the inco-ordination, and is based upon a plan of re-educating the muscles. This is accomplished by practicing repeatedly certain movements, which are graduated from simple to complicated.

It was Fraenkel who, in 1890, first described this new method. While acknowledging the great benefit of baths in the treatment of ataxics, Fraenkel advises against combining them with this treatment.

Improvement goes on from the first.

The exercises should be done two and three times daily, and it is preferable that the physician should be present, certainly at first, and especially when the fatigue-sense is lowered. The results are permanent if the general health remains good and the exercises are persisted in.

It is very important to see that the digestive functions are properly attended to. Torpid liver alone in a great

many cases causes outbreaks of the lancinating pains.

The spasmodic cough yields, though not always, to combinations of antipyrin or acetanilid, cannabis Indica, and codeine. When it is very intense and prolonged, amyl-nitrite and morphine alone are effective.

It is very important to be sure that there is no residual urine in the bladder in those cases suffering from incontinence or retention. The bladder should be frequently catheterized and washed if there is indication of cystitis.

In the pains of the ataxic, a hot bath, followed by wrapping the affected parts in warm blankets, is very effective, associated in more persistent cases, with such a combination as advised above for the spasmodic cough. J. W. Rhein (Therap. Gazette, Dec. 15, 1901).

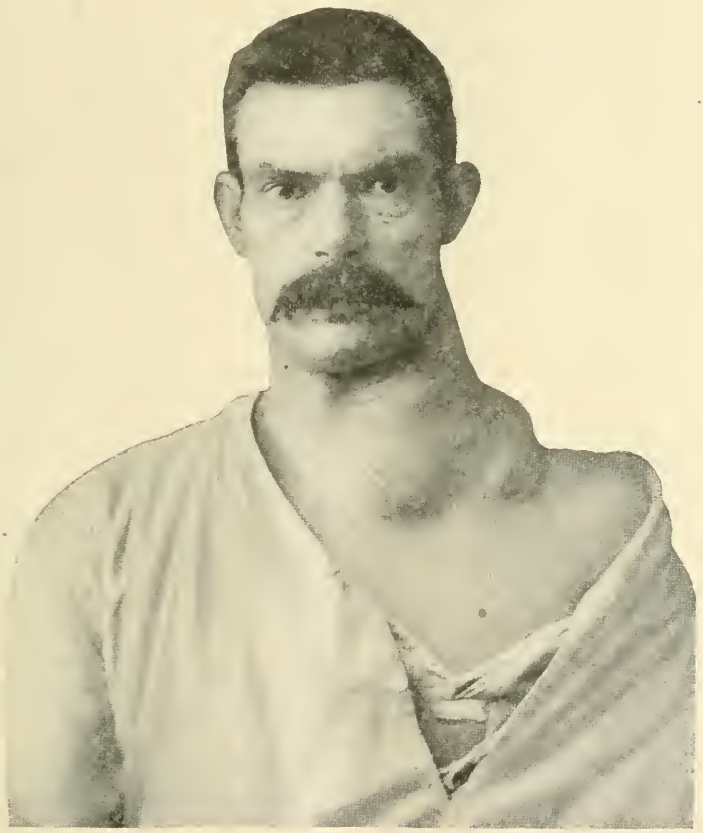
LYMPHADENOMA, FEVER IN.

The following case of lymphadenoma with recurrent fever occurred in University College Hospital, London. The patient was admitted to the hospital with a mass of enlarged glands on the left side of the neck, lying underneath and on either side of the sterno-mastoid muscle, and reaching from the ear to the clavicle. All the characters of lymphadenomatous glandular invasion were present. The glands were freely movable, being in the earlier stages free from attachment to one another or to the skin; as a rule, they were not tender, but one or two near the clavicle showed some tenderness, were softer than the others, and the skin in the neighborhood was distinctly red. The blood-examination revealed nothing abnormal beyond the fact that there was an increase in the total leucocytes (16,000 per cubic millimeter); the relative proportion of the various leucocytes was normal. Shortly after admission the temperature rose, reaching a height of 102° F.; the girth of the neck increased, and the tenderness of the glandular swellings was intensified. A number of glands were then removed. No suppuration was found in any of the glands, though yellow-white areas were seen, showing a tendency to caseation. The wound healed quite normally, and the patient was discharged much relieved. A little more than two months later the patient was again admitted with the history that, since his last visit to the hospital, he had had seven attacks of fever, in which he shivered, vomited, and had occasionally some diarrhœa. In the intervals between the attacks the glands in the neck shrank so that he could easily button the collar of his commissionaire's tunic; during the attacks this was quite impossible. The spleen was now found to be enlarged, and there was swelling of the left arm. On June 1st the temperature gradually rose, reaching 104.6° F. on the 4th of the same month, and then gradually subsided, reaching normal on the ninth day from the onset of fever. A similar attack occurred between June 19th and 29th. On both occasions there was a measurable increase in the girth of the neck. Toward the latter part of July another slight rise took place, having much the same accompaniments as in the former attacks. The patient then left the hospital, returning again in October very much wasted, with increased glandular enlargement on the right and left sides of the neck in both axillæ and groins, and signs were present of involvement of the mediastinal and retroperitoneal glands. Blood-examination showed about 80 per cent. of the normal red blood-corpuscles and 55 per cent. of hæmoglobin; there was also

an increase in the leucocytes. The temperature was raised, but reached the normal in about nine days. A fourth and much more protracted period of pyrexia commenced on November 2d, and lasted to the 22d of the month, death following shortly after.

At the autopsy the enlarged glands in some places were adherent to one another; the spleen was greatly enlarged, and showed the "hard-bake" deposits met with in lymphadenoma. In no case was suppuration met with in any of the glandular masses. The glands on section revealed the characters met with in lymphadenoma. A few lymphadenomatous masses, as large as peas, were found in the liver. No evidence of the malarial parasite had been found in the blood during the periodic fever.

Consideration of seventeen cases impresses the view that "lymphadenoma with recurrent fever" is not a special form of disease; that such cases are due to a terminal infection occurring any time during the last year of life of some patients affected with lymphadenoma; that the nature of the bacterial invasion is different in different cases, and that in some cases proof of a bacterial invasion is wanting; that, in a consider-



Fever in Lymphadenoma. *(H. Batty Shaw.)*

(Edinburgh Medical Journal, December, 1901.)

able number of cases of lymphadenoma with recurrent fever, there is a great constitutional disturbance, with elevation of temperature, rigors, vomiting, diarrhœa, anorexia, and malaise; that in some cases urobilinuria is a marked symptom; that in some of the cases the superficial lymphatic glands, and even the spleen, become very tender and enlarged during the attacks; and that the skin over the enlarged glands may become reddened and show increase of local temperature. Finally, that the prognosis in such cases is, as a rule, hopeless, and that the duration of life, after the onset of the periodic attacks of fever, averages about seven and a half months, but may be as much as twelve or fourteen months. H. Batty Shaw (Edinburgh Med. Jour., Dec., 1901).

MALARIAL DISEASE, PREVENTION OF.

Attention to the following simple rules will usually suffice to prevent malarial infection:—

1. Avoidance of fatigue and excesses of all kinds. Judicious, liberal diet. The use of alcoholic beverages in small quantities, particularly in warm countries; spices and condiments in small quantities; coffee, on account of its tonic properties.

2. The drinking-water should be boiled and filtered carefully unless its purity is unquestionable.

3. Avoidance of exposure at night, which is the time the *Anopheles* usually bite. The protection of the dwelling-house from mosquitoes by the use of fine wire or other screens. The destruction of those mosquitoes which have gained entrance into the house. The screening of beds at night.

4. The destruction of mosquitoes by the draining of stagnant holes, pools, drains, and other breeding-places, and the destruction of the larvæ by the use of petroleum thrown on the surface of those pools which cannot be drained. One ounce of petroleum to 15 square feet will destroy the larvæ, and continue to prevent their development from two to four weeks.

5. The isolation of the malarial patient from the *Anopheles*, should it exist in the same locality.

Even without the auxiliary action of quinine, the system carries on a more or less successful warfare against the plasmodium of malaria. In this combat the leucocytes appear to play an important rôle. Those suffering from debilitating diseases are usually more susceptible, and are wont to suffer from many relapses. Tonic treatment is, therefore, indicated, and iron in some form should be administered.

Sometimes it will be necessary to stimulate the hepatic function by the use of cholagogues. C. C. Beling (New York Med. Jour., Dec. 7, 1901).

METRORRHAGIA AT THE EXTREMES OF LIFE.

There is a metrorrhagia in young girls due to glandular and interstitial endometritis, which, if neglected, may seriously impair their health; it is curable by curettement (perhaps repeated) and by the removal of any cause of pelvic congestion that may be present. There is a metrorrhagia in old women years after the menopause not due to malignant disease (which ought always to be suspected), but to a corporeal or cervical polyp and an accompanying endometritis. B. C. Hirst (Therap. Gazette, Dec. 15, 1901).

MICTURITION, INVOLUNTARY, IN CHILDREN.

One of the first steps should be to correct any condition of malassimilation or debility which may exist. Sources of local irritation having been excluded, the condition should be treated as a pure neurosis. One of the best remedies is the daily injection of full doses of sulphate of strychnine in the lumbar region.

In cases of involuntary micturition dependent upon chorea the usual measures for the correction of that condition should be adopted: cold bathing, massage, codliver-oil, arsenic, and antispasmodics. Such remedies as the bromides, valerian, asafœtida, and camphor are of special service. A remedy which has proved of special service in the forms of enuresis due to hyperæsthesia of the vesical neck is tincture of cantharides in minute doses. Where hyperacidity of urine exists, this may be combined with acetate or citrate of potassium or lithium. The lithium salts are of special value where there is a gouty or rheumatic diathesis. The salicylates also come into play here. Such tonics as the mineral acids, quinine, and iron, with a liberal dietary of fat, and perhaps the administration of codliver-oil are demanded in many cases in which malnutrition is a prominent factor. Ergot is very often useful. A very valuable remedy in purely neurotic cases, and especially in those accompanying chorea, is santonin in full doses: this independently of the existence of intestinal worms. In cases of phosphaturia a diet of proteids with the administration of mineral acids has a much more limited range of value than authorities on therapeutics seem to believe. While it does act favorably, it is in many cases of only temporary benefit.

Where the involuntary micturition is due to the irritation of saccharine urine, as in diabetes mellitus, or the rapid entrance of urine of low specific gravity into the bladder, as in diabetes insipidus, the primary condition demands correction. Urine of extremely low specific gravity and consequent non-irritating character is often not so well tolerated by the bladder as is a more concentrated and consequently more irritating urine. The reason for this seems to be the fact that in cases of diabetes insipidus and allied conditions the urine is secreted so rapidly that the bladder does not have time to accommodate itself to its contents.

In by far the majority of instances local treatment is required, and its neglect is the explanation of frequent failures in the management of this condition. The necessity for local treatment in cases of involuntary micturition due to an irritated condition of the genito-urinary tract is obvious; thus, an operation for stone, the application of silver to the vesical neck, or surgical intervention for the relief of diseased kidneys may be necessary.

The urethral sound is one of the most valuable measures for the treatment of a large proportion of cases of involuntary micturition in children. All sources of reflex irritation should be relieved; the prepuce, if phimosed and redundant, removed; and all adhesions separated. The meatus, if narrow, should be cut. Caruncule of the urethra and preputio-clitoridal adhesions may demand attention in female children.

Next to the sound, the most efficacious method of treatment in the purely neurotic cases is the injection of strychnine beside the spinal column in the lumbar region. The dosage is to be in

proportion to the age of the child: but, as a single daily dose is given, a larger quantity can be administered than where it is given internally three times daily. The injection should be made deeply into the substance of the erector spinæ muscle, and as close to the spinal column as possible.

Where vesical catarrh is a factor in the cases, and especially in cases where the urine is alkaline or neutral, urotropin is often of value in connection with the usual local measures for the correction of the condition. G. Frank Lydston (Pediatrics, Jan. 15, 1902).

MILKS, ARTIFICIAL.

While, in the generality of subjects the use of milk in disease cannot be improved upon by any other fluid food, in exceptional cases it cannot be administered for a variety of causes. Some of these are fanciful and the outcome of prejudice, others real and beyond the patient's will or judgment to control.

For these various reasons, substitutes for milk have been personally devised where its use is thought a necessity, but when a patient's distaste or objections must be considered.

In composing an artificial milk the following conditions are considered: That it should approximately represent all of the component parts of the animal secretion. That the percentages of salts and of water are of vital importance. That the product should be cheap and readily and rapidly prepared. That the ingredients should be easily obtained. That they should be fresh and sterile, and that the mixture be palatable. These requisites are fulfilled in the following general formula: Extract of malt (sirupy), 1 tablespoonful; olive-oil, 1 tablespoonful; roasted flour, 2 teaspoonfuls; 1 broken raw egg. Beat up in a bowl or dish with a spoon or egg-beater for three or four minutes. Add by degrees, while stirring, a tumblerful or gobletful of pure, cold, drinking-water. Season with table-salt. To be taken one or two hours after meals; in hot weather, crushed ice may be added, or the whole may be prepared in a "milk-shaker."

The extract of malt is used to emulsify the oil, and for its diastatic effect upon the flour. The malt should be of thick consistency. The olive-oil represents the fat of milk. The egg, the albuminoids, fat, and salts of the natural fluid. The table-salt is added for its digestive effect and to improve the taste of the compound. The roasted flour, after conversion into dextrin and maltose, replaces the lactose of milk. The proportion of water is necessary for proper digestion and ready absorption.

This general formula is varied and modified in numerous ways, according to the circumstances or indications of any particular case. The flour may be increased in amount or diminished or omitted. Increased for its soothing effect in intestinal disease, dispensed with where a carbohydrate is not indicated. The olive-oil may be replaced by any other fixed oil or fat. Of the former class, codliver-oil deserves particular mention. Other more or less eligible substitutes for olive-oil are the fixed oils of cotton-seed, rape-seed, sweet almonds, poppy-seed, and pea-nut.

Of fats, unsalted butter and chocolate, 1 heaping teaspoonful of the first and 2 heaping tablespoonfuls of the second, will be found useful. In a chocolate milk, the roasted flour is needless. The chocolate should be grated, or in fine powder form.

The flavor of these artificial milks is rich, and the after-taste pleasant. They

produce the agreeable, general sensation of normal digestion. They are restoratives for minor forms of temporary exhaustion, muscular or mental. They produce feelings of composure and confidence. The subject's mind and manner, nerve and decision, are at their best. Louis Kolipinski (Medical News, Dec. 21, 1901).

MYOCARDITIS, CHRONIC.

In chronic myocarditis the most common physical sign is the sallow, pallid countenance. A general endarteritis may be present for a long time and yet no change occur in the complexion. Interstitial nephritis may progress slowly, and yet cause no change in the complexion. The onset of this sallow hue is generally synchronous with the degenerative cardiac lesion, and usually cardiac symptoms or physical signs are found coincidently, the endarteritis involving the coronary arteries.

With the sallow countenance, the earthy complexion, a prematurely old appearance of the individual manifests itself, in the color of the hair, the baggy eyelids, and the abundance of wrinkles.

With the external appearance common to most cases the results of physical examination usually tally. In the first place, there is evidence of endarteritis in the vessels.

The physical signs of the heart are those of the (*a*) myocarditis alone, or those of (*b*) myocarditis plus some hypertrophy, or those of (*c*) myocarditis plus dilatation. The physical signs of myocarditis are those of feeble or absent impulse; or, if palpable, of apex impulse displaced to the left; of marked increase in the area of absolute cardiac dullness, and of characteristic auscultatory phenomena.

The latter phenomena are those either of a systolic shock, greater than the force of the impulse would lead one to believe to be present, or of feeble muscular sound. From the first, or at least early, there is gallop-rhythm, or reduplication of the systolic sounds. This reduplication may be heard over the right heart or more distinctly over the left heart; sometimes it is heard all over the precordia. It may be more marked in the supine position, and is generally more marked after exertion. It may disappear after a stimulant is taken or if the heart is stimulated by fever.

Reduplication of the second sound also obtains, but is less frequent in the myocarditis of coronary artery disease than in that due to valvulitis or nephritis. In uncomplicated cases murmurs are not heard until late in the disease. Sometimes, however, a systolic murmur is heard at the fourth rib, greater in the recumbent posture. This murmur is soft, low in pitch, and often heard in the parasternal line. Again, it is at the tricuspid or even may be in the pulmonary area, when it is probably, although not necessarily, hæmic.

When dilatation supervenes, the physical signs change in keeping with the physical condition of the heart. J. H. Musser (Medical News, Jan. 11, 1902).

MYXŒDEMA.

It is a mistake to crowd the thyroid in the beginning of treatment. The heart-muscle, from a long-continued absence of the thyroid secretion, is so weak that it stands its primary depressing effect badly. When a little time has elapsed, and the heart has again become accustomed to the effect of the thyroid substance, it may be increased with

propriety and benefit. T. P. Prout (Amer. Jour. of the Med. Sciences, Dec., 1901).

NEURASTHENIA.

The name neurasthenic spine is used to designate those painful affections of the spine in which the subjective symptoms are out of proportion to the objective signs, and in which no organic disease can be found to exist.

The symptoms of the condition vary very much in severity, but comparatively little in type. The slightest grade is shown by backache, increased by exertion and physical or mental fatigue. Sensitive spots are present near the spinous processes in different regions of the spine. Sensitiveness of the skin and certain muscles may be present. The pain is increased by motion and jar, and, as a rule, persists for many hours after the cause of it has stopped.

The severest type is represented by a condition in which the patient is unable to sit erect on account of similar symptoms of severe grade. Such is the spinal invalid.

Between the extremes lie cases of every degree of severity. In the severe cases of long standing some impairment of motion is likely to come on, and lateral deviation of the spine to a slight degree may be present. In most cases, especially in the severer ones, the patients present some of the general symptoms which would be classified as neurasthenic or hysterical. The condition is almost invariably chronic, and without treatment its tendency is to remain stationary or to grow worse. R. W. Lovett (Amer. Medicine, Nov. 30, 1901).

Gastric neurasthenia is not an affection of the stomach, pure and simple, but a local expression of a general neurasthenia, and is, in fact, the commonest manifestation of it. The patient has, in all probability, suffered for a long time with general neurasthenia of a mild form, but has taken little notice of the diminished capacity for mental and physical work, and the other characteristic symptoms, and it is not until to these are added the special gastric troubles that he decided to obtain medical advice.

As regards the recognition of gastric neurasthenia, one is practically justified in diagnosing it when one has excluded all organic or anatomical affections of the stomach, and, in addition, finds the characteristic stigmata of general neurasthenia. The signs elicited upon a physical examination of the patient, and which will confirm the diagnosis, are the following: 1. One will probably be able to elicit the splashing sound (*clápotement*, *Magenplätschern*) during the whole of the digestive period; but the absence of food-residues from the stomach before breakfast will show that the severe form of myasthenia gastrica is absent. It is important to bear in mind that gastric splashing may be absent in cases characterized by the presence of sensory neuroses only. 2. There are usually spots painful on pressure in the upper abdominal region. There is not a single one, as in ulcer, but several, and these not so acutely tender. 3. No diagnostic information is to be obtained by the chemical examination of the gastric juice. Usually there is slight hypochlorhydria, occasionally hyperchlorhydria, and often it is quite normal. 4. Gastroptosis and nephroptosis are often present, and strongly suggest neurasthenia.

The diagnosis is thus mainly to be made by a process of exclusion. George

Herschell (Edinburgh Med. Jour., Jan., 1902).

A nasal spur, exostoses, hypertrophy of the mucous membrane covering the turbinate bones, by pressure upon the sensitive nerves of the Schneiderian membrane, frequently cause pain in the eyes, headache, and nervous exhaustion, and complete relief is experienced by the patient after a successful operation for the removal of the cause of irritation.

Neurasthenia has been divided by neurologists into two types: cerebral and spinal. Those symptoms which are of cerebral origin the result of reflex irritation, and terminating in nervous exhaustion, are as follow: The subjects of this malady are usually of the female sex. Hysteria may develop, but does not take the form of convulsions; sick headache, twitchings, muscular weakness, and melancholia are among the most prominent symptoms.

Ranney, in his "Lectures upon Nervous Diseases," says: "In this class of cases my experience has convinced me that eye-strain constitutes one of the most important factors in the causation of the symptoms, and the detection and relief of the defect which exists in any individual case is of the greatest importance."

In one personal case a young lady suffered for the past three or four years with headache and pain through the eyeballs. Smarting and burning of the eyes, which at times were sensitive to the light. She had also throat trouble and nasal catarrh. Suffered with cold feet and hands, palms of the hands nearly always moist with perspiration, but seldom perspired on the balance of the body. Had insomnia and melancholia. Had been also a sufferer from chronic urticaria. Had taxed her eyes severely in copying for her father, who was writing a book.

The case was typical of profound neurasthenia, or nerve-exhaustion, to which it is believed the eye-strain had largely contributed. Vision with each eye was $^{20}/_{15}$. Examination of the eyes under sulphate of atropine revealed hypertrophic astigmatism, corrected by a plus cylindrical lens, $^{1}/_{2}$ diopter; axis, 120 degrees, for left, and 90 degrees for right, eye. This, with treatment of the nasal catarrh by sprays, electrical cautery, and removal of hypertrophied mucous membrane and a part of the cartilage of the middle turbinated bone with nasal saw, relieved the nasal trouble, and also the pain in head and eyes. Neurasthenic symptoms disappeared, and her general health greatly improved. She wears her glasses now only for sewing and reading. In this case there was the complication of nasal catarrh, but the removal of the eye-strain by correcting the astigmatism relieved most of the neurasthenic symptoms before the nose was surgically treated. J. H. Buckner (Cincinnati Lancet-Clinic, Jan. 4, 1902).

As regards the question of diet in gastric neurasthenia, the first problem to be decided is the frequency with which meals should be given. One should first ascertain the presence and degree of the affection by extracting the stomach-contents, before dinner and before breakfast, respectively.

The object of the examination is to exclude myasthenic retention. If this can be done, frequent small meals may be given.

The next point to ascertain is whether the food shall contain a preponderance of proteid or of farinaceous material. To this end a Ewald test-breakfast, consisting of dry bread and

water, is administered, and the contents of the stomach examined one hour afterward.

If hydrochloric acid is in excess, a food must be given which has a high combining value with hydrochloric acid. There are several foodstuffs which, while having a high combining value to HCl, yet stimulate the secretion of it much less than red butcher's meat. These are sweetbreads, calves' brains, oysters, albumin of eggs, plasmon, and milk.

The amount of starchy food must be limited; as much of it must be converted into dextrin as possible. Bread should be toasted, and converted starch, such as grape-nuts or Mellin's food, may be given. With the starchy food a diastatic ferment—such as malt-extract (choosing the liquid ones, such as bynin), taka-diastase, or infusion of malt —should be given.

If the hydrochloric acid is found normal or deficient, such a diet as the following may be prescribed:—

Breakfast.—Cold boiled bacon, toast, one egg; toward the end of the meal, one small cup of cocoa. Fresh butter *ad libitum*.

Lunch.—One white meat, or fish or poultry or bird; green vegetables in the form of a *purée*; stale bread or toast. One glass of water toward the end of the meal.

Dinner.—Fish; butcher's meat, roast, grilled, or boiled, especially lamb, hare, tender beef, and tripe; *purée* of vegetables; baked apples or stewed fruit, baked custard pudding; toast or bread. One glass of water toward the end of the meal.

If desired, a little spirit may be added to the water at lunch and dinner. An hour before any meal the patient may take as much water as he likes to drink. No soup, *entrées*, or nuts, cheese, or pastry are to be allowed.

In gastric neurasthenia all food of every kind will cause discomfort. It is well, therefore, to explain this to the patient, and put him at once upon a diet which is adequate to support life, and insist upon it being taken, however much discomfort it causes. George Herschell (Edinburgh Med. Jour., Jan., 1902).

ŒDEMA, ACUTE SUFFOCATIVE PULMONARY.

The symptoms of acute suffocative pulmonary œdema are so striking that there is but little difficulty in recognizing their significance. Without warning, and without any overexertion or excitement, the patient is suddenly seized with great difficulty of breathing, accompanied by a sense of intense oppression behind the sternum. It is quite impossible for him to lie down, and almost simultaneously with the onset of the dyspnœa—a most important diagnostic point—expectoration of a perfectly white, finely frothy, watery sputum begins. The frothy fluid seems to flow up the trachea, and is expelled with a "hawk," as if clearing the throat, but there is no cough in the ordinary sense of the word. The sputum continues during the whole period of the dyspnœa, and the seizure is not usually accompanied by fever. The impulse may be very rapid; and wheezing and fine, moist râles are everywhere heard. The extremities soon become cold and blue, the face is ashen gray, and the agony and anxiety of the patient are extreme. After a little the frothy sputum becomes slightly pink in color, and in some cases, after the attack has lasted for an hour or two, definitely bloody.

In the course of five or six hours as much as one and a half pints of this frothy fluid may be expectorated. The whole clinical phenomena indicate that the pulmonary alveoli are suddenly inundated with watery serum, and it is quite conceivable that such a condition might prove very rapidly fatal.

The symptom which establishes the diagnosis of acute œdema of the lungs as against pulmonary embolism is the rapid development, practically coincident with the onset of the dyspnœa, of white, frothy, watery expectoration, which afterward becomes slightly pink in color. In embolism expectoration is a later development, and when it is established the sputum is definitely bloody from the first.

Free stimulation is the first therapeutic procedure which would naturally suggest itself on witnessing the state of collapse into which the patient soon passes. The stimulants are better administered hypodermically and by the rectum. An ounce of brandy may be injected into the rectum diluted with an ounce or two of water or beef-tea. At the same time a hypodermic injection of strychnine ($^1/_{60}$ grain) and of digitalin ($^1/_{100}$ grain) may be administered. The patient should be kept absolutely at rest in the sitting posture. A sinapism over the precordium is of assistance, and the extremities should be kept warm by hot bottles. Opiates in any form are to be avoided. The injections may be repeated, if necessary, in three or four hours. If the patient is able to swallow, diffusible stimulants, such as sal volatile, are to be recommended, and small quantities of milk, beef-tea, and brandy from time to time.

The propriety of blood-letting also suggests itself. The blood may be taken either at the arm or by wet-cupping of the chest. The depression and collapse, however, are frequently so extreme that one hesitates to deplete. J. L. Steven (Lancet, Jan. 11, 1902).

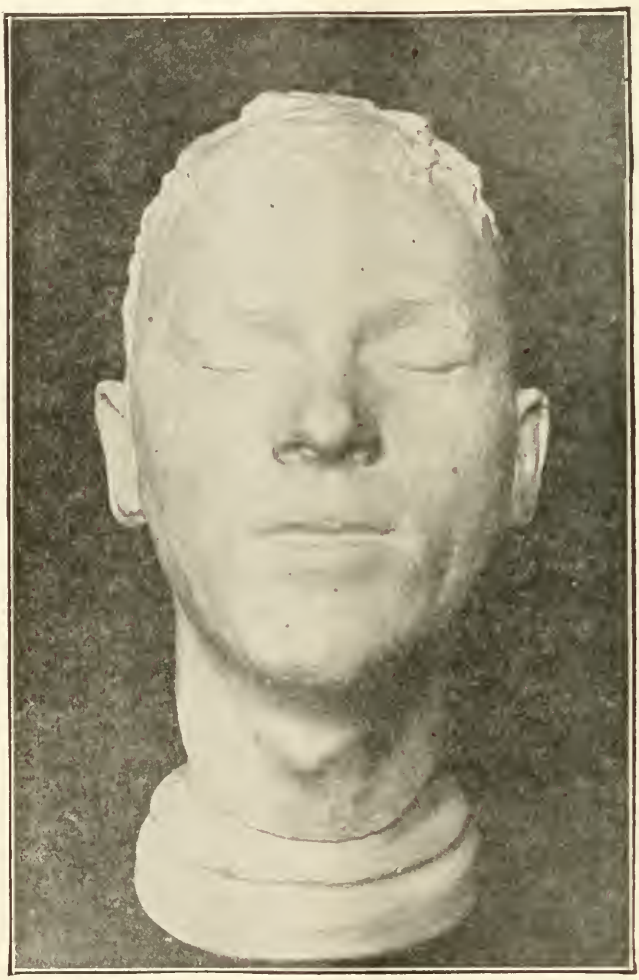
OSTEITIS OF THE KNEE, EFFECT OF.

From measurements of the femoræ, tibiæ, feet, and patellæ, during or after osteitis of the knee, in 40 cases where the disease had begun in childhood, the following conclusions were reached: 1. The affected limb, if approximately straight, was longer in the first four years in the large majority of cases. In observed cases of adolescents and adults it was from one to several inches shorter when the disease had lasted over seven years. 2. The affected femur was nearly always longer in the first four years, and the lengthening of the limb mainly due to lengthening of the femur. In the older cases, after a duration of seven years or more, the femur was markedly shortened. 3. The tibiæ were usually equal in length in the early stages; later the tibia of the affected side might be slightly longer for a time, but oftener shorter; the shortening increased considerably in the older cases, and after the subsidence of inflammation. 4. With limbs of equal length and a duration of several years, the femur of the affected side was found longer and the tibia shorter than its mate. 5. The foot and patella showed a difference in favor of the sound side after one year and frequently before. 6. The stimulation of growth in the affected femur was accompanied by a retardation in the tibia, foot, and other parts; growth in the femur itself was finally retarded. The result after many years was often considerable shortening of the limb. H. L. Taylor (Medical News, Dec. 28, 1901).

POST-MORTEM EXAMINATION OF LEON F. CZOLGOSZ.

The following measurements of the head of Leon F. Czolgosz have been recorded:—

	Centimeters.
Maximum lateral diameter	15.5
(Cephalic index = 82.88.)	
Bi-auricular diameter (between roots of zygomata)	15.0



Post-mortem Examination of Leon F. Czolgosz. (*E. A. Spitzka.*)

(New York Medical Journal, January 4, 1902.)

	Centimeters.
Maximum circumference (21 1/2 inches)	54.6
Maximum antero-posterior diameter (from glabella to maximum posterior point)	18.7
Length of face (from the intersuperciliary point to the superior alveolar point between the middle incisors)	9.2
Bizygomatic diameter	14.5
Minimum frontal diameter	12.0

	Centimeters.
Diameter from glabella to inion..	19.1
From vertex to hair-line.....	12.0
From hair-line to root of nose....	6.0
From root of nose to its base....	5.3
From base of nose to chin.....	7.0

After these measurements had been taken plaster molds of the entire head were made. A case was made from the molds, and two views, in full face and in profile, are presented here.

Post-mortem Examination of Leon F. Czolgosz. (*E. A. Spitzka.*)

(New York Medical Journal, January 4, 1902.)

	Centimeters.
Vertex to chin (diameter).....	25.4
Breadth between pupils of eyes..	6.8
Breadth of nose at its base	3.4
Width of mouth (internally)....	4.0
Width of mouth (externally)....	5.0
Length of ears (both sides equal).	6.1

The molds were made upon the head while the body lay prostrate upon the table. This attitude gave rise to the prominences of the "Adam's apple" and to the slight parting of the lips. The hair was rubbed well with vaselin and

flattened as much as possible to prevent the plaster from adhering.

On the skull the following measurements were taken:—

	Centimeters.
Maximum antero-posterior diameter	18.0
Maximum lateral diameter	14.7

(Cranial index = 81.66.)

The head of Czolgosz, as is typical of the Poles, falls into the subbrachycephalic class; according to Weisbach, the cephalic index of forty Poles was 82.9 (82.88 in Czolgosz).

As to the question whether his body invested a healthy mind, so far as our knowledge of the correlation of brain-structure and brain-function extends, nothing has been found in the brain of this assassin that would condone his crime for the reason of mental disease due to intrinsic cerebral defect or distortion. The brain-weight, though by itself unimportant, when considered in its other relations, points to a good condition of the organ. Divested of its membranes, dissected, drained, and after being immersed in a salt solution for several hours, its weight was 1415 grammes, a trifle less than fifty ounces. This weight is even a little over the average. Giltschenko records observations upon the weight of 102 Polish brains, the average being, for males, 1397.8 grammes, with an average stature of 168.12 centimeters. The development of the fissures and gyres, from a morphological view-point, has taken place in the direction usual in ordinary average brains. There are no marked evidences of arrested development or of pithecoidal anomalies. Generally speaking, this brain does not exhibit that special kind of asymmetry of gyral structure in the cerebral halves that is so characteristic of the brains of highly-endowed individuals. There are many features in the one hemisphere that are reproduced almost exactly alike in the other. The few peculiarities encountered in the course of the fissures, such as the confluence of the left precentral, by its anterior ramus, with the superfrontal — across the medifrontal gyrus; or the separation of the right cephalic paracentral limb from its stem while at the same time the inflected joins the paracentral—a feature found by the writer in 9 out of 160 hemicerebra in which the inflected was present, also the smallness of the cuneus—are insignificant so far as individual brains are concerned.

The skull is not symmetrical, but the asymmetry is slight and fully within the normal range of variation. An absolutely symmetrical skull probably does not exist.

It is a probable fact that certain oft-mentioned aberrations from the normal standard of brain-structure are commonly encountered in some criminal or degraded classes of society, and those who have attempted to found a school of degeneracy have endeavored to explain crime and social wickedness as due to the "accidental persistence of lower types of human organization." But these structural anomalies, so far as they have been described in the brains of criminals, are too few and too insufficiently corroborated to warrant us in drawing conclusions from them. The verdict must be: "Socially diseased and perverted, but not mentally diseased." E. A. Spitzka (New York Med. Jour., Jan. 4, 1902).

PREGNANCY, PELVIC AND ABDOMINAL TUMORS COMPLICATING.

In the very small percentage of cases in which malignant tumors are the

cause of the obstruction, they should be dealt with according to the well-established principles of modern surgery. The operation should be done at once without any reference to the child, if by so doing there was any additional chance of saving the life of the mother. If the ovarian tumor is thin-walled, of large size and rapid growth, and the patient is not near her full term of gestation, an operation should be advised, even if the uterus is below the tumor. If the tumor is thick-walled and of slow growth, is not causing much, if any, inconvenience, and rides above the enlarged uterus, an operation is not urgently demanded. If the tumor is small, is situated below the uterus, and is fixed either by adhesions or by impaction, an immediate operation is demanded. Tapping the tumor for temporary relief should not be done. In fibroid tumors of the uterus associated with pregnancy, where there are but one or two large nodules, and they are situated in the upper half of the uterus, an operation should be advised only in rare instances. These patients can be delivered safely and be operated upon later if necessary. If the tumor is below the uterus, and a large nodule blocks up the passage, an operation should be advised and done early. Myomectomy is usually not to be considered in these cases, on account of the increased blood-supply. It is advised only when an exceptionally favorable tumor for this method is encountered. R. B. Hall (New York Med. Jour., Dec. 7, 1901).

PROSTATECTOMY, MEDIAN PERINEAL; TOTAL REMOVAL OF THE PROSTATE GLAND.

The patient is placed in the extra-lithotomy position. The prostatic depressor is inserted into the bladder through the urethra, and handed over to a trusty assistant. A sponge is pushed into the rectum, to prevent the escape of liquid fæces. The middle finger of the left, gloved hand is then introduced into the rectum and pressed against the urethra at the junction of the membranous and prostatic portions; a long, narrow-bladed knife is passed into the perineum through the raphé in the median line, two inches in front of the anus, until it reaches near to the tip of the finger in the rectum, and with one stroke all the structures are cut through to the prostate, without injury to the urethra, prostate, rectum, or anal sphincter. The skin-incision is now enlarged, if necessary, for the introduction of two fingers. Suitable retractors are placed, one on each side, into the wound, and by blunt dissection the prostate is exposed, and with the depressor in the bladder it is forced into the perineal wound. The capsule is opened with knife or scissors in a transverse direction sufficiently to admit one or two fingers. The retractors are within the capsule. This is important, because traction made on them drags the gland still farther into the wound and holds it firmly while enucleation and extirpation are being performed. One then enucleates with the finger, and bites away the portions thus liberated with the prostatic forceps, until by piecemeal the prostatectomy is completed. While morcellement is in progress, it is advantageous to advance the retractors within the capsule and introduce the middle finger into the bladder. Any water that is in the bladder and wound is to be mopped out, and a drainage-tube, surrounded with iodoform gauze, is introduced through the wound into the bladder. A couple of horse-hair

stitches close the part of the skin-wound not occupied by the tube and at the same time prevent the gauze from coming out too soon. The sponge is removed from the rectum; a comfortably firm dressing is placed over the perineum and held by a T-bandage. A long, rubber tube is then attached to the external end of the drainage-tube. A. H. Ferguson (American Medicine, Nov. 30, 1901).

PSYCHOSES, THE ACUTE.

Under certain conditions and in carefully selected cases travel is a therapeutic measure of great importance. To advise it indiscriminately is more than a mistake; it is a crime. Whether it be by sea or by land, the special nature of each case must determine. Travel has two spheres of greatest usefulness: either as a preventive measure or as an aid to convalescence.

Slight dementia, due to serious bodily illness, and the insanities associated with phthisis, asthma, etc., have been greatly benefited by sea-voyages. Paranoia is harmed, never helped; travel increases the morbid egotism and intensifies the delusions. In excited mental cases, especially in general paralysis, travel is counter-indicated. Much has been hoped for it in adolescent insanity, but the results have been most disappointing. An ocean-voyage is thought to be especially desirable for the milder melancholias: those arising from shock, influenza, and overwork. The graver forms of the disease are only intensified by it. The quieter melancholiacs are kept, the better. Travel greatly increases the probability of suicide in this class of cases. C. Eugene Riggs (Jour. of the Amer. Med. Assoc., Nov. 23, 1901).

QUININE RASHES.

Quinine eruptions may be divided into the following groups: The scarlatiniform, the urticarial, the bullous, the purpural, the rubeoloid, and the erythematous. Outside of these groups, there have been reported isolated cases which cannot be placed in any of these classes.

Concerning the comparative frequency of these eruptions, out of 60 cases collected from literature, 18 were classed as erythema, 12 as scarlatinoid, 9 as urticarial, 5 as purpuric, 2 as bullous, and 2 as rubeoloid. There were 4 cases of mixed eruptions, 3 being urticarial and erythematous, and 1 bullous-scarlatinoid. In 5 of the cases the description was insufficient to allow of a proper conclusion. Eczema was noted in 1 case.

In some cases the eruption was limited to the face or limbs, while in many cases it was equally distributed all over the body.

Two points of great interest from a diagnostic standpoint, especially in those cases resembling scarlet fever, are the question of the involvement of the mucous membranes and the occurrence of desquamation. Out of 60 cases, including personal, 14 were reported to have desquamated, and 3 not to have desquamated. In 11 cases the mucous membranes of the throat were reported to have been affected, and in 3 cases not to have been affected. The eruption appeared, as a rule, within one day after taking the medicine. In 1 case it was noted within ten minutes of the ingestion of the drug, while, in another case, it was said to have followed immediately.

The eruption appeared in one hour or less in 8 cases; in one day or less in 21 cases; in over one day in 9 cases.

The latest period at which the eruption was noted to appear after the single dose was two days, of which there are several instances. H. C. Wood, Jr. (Therap. Gazette, Jan. 15, 1902).

RECTAL VALVES.

For the last two and a half years the movable rectum has been personally examined in some two hundred different individuals, and, with the exception of those subjects in whom the gut-walls had been rendered non-inflatable by disease, not an instance has been found in which the presence of the rectal valves admitted of a question. These structures have not only been present, but always the most conspicuous and easily discernible features in the entire rectum.

The rectal valves are not composed of mucosa alone, but comprise in their structure submucosa and muscular fibers as well, and therefore must impose direct resistance and support to the rectal contents; hence must be regarded as something other and more than mere folds of mucous membrane. From the modification in structure and arrangement which all the coats present upon reaching these valves, one is forced to the conclusion that they are definite anatomical structures, and should be entitled to recognition as such, just as much so as the appendix vermiformis. A. B. Cooke (Amer. Practitioner and News, Dec. 15, 1901).

RHEUMATIC FEVER AND ITS COUNTERFEITS.

Almost all forms of arthritis or joint disease are the result of some infection, one exception only being in the case of gout. Therefore, when an arthritis occurs, unless it is the result of direct injury, so-called traumatism,—and even then it is very likely that microbes are at work,—one may always be sure that infecting matters have gained access. Arthritis which comes on independent of injury is always of an infective nature. The diseases to be mentioned as giving rise to arthritis are of that character. Gout seems to be the only exception, in so far that the noxious matter does not come from without, but from within. The gouty patient makes his own poison; he produces it by a vicious metabolism of which he is the victim. The rheumatic patient does not grow his own poison; that comes from without. Therefore in all these cases of arthritis, with the exception, theoretically, of traumatic arthritis, one has to deal with an infective process.

Of these diseases, influenza is very often the cause of arthritis: a condition which is called post-influenzal arthritis. In scarlatinal arthritis there is a certain toxic matter, but it has not been differentiated. Scarlatinal arthritis is generally of a pyæmic character.

Gonorrhœal arthritis is caused by the gonococcus. In some people that infection leads to a very severe and intractable form of arthritis, falling especially heavily upon persons of a gouty constitution. One also recognizes dysentery as a disease which is sometimes followed by arthritis: a post-dysenteric arthritis. There is a pneumococcal arthritis depending on the presence of the same pneumococcus as causes pneumonia in the lung.

After cerebro-spinal meningitis one meets with arthritis which also belongs to the pyæmic class. Thus there are several varieties of septic arthritis. Formerly, before the days of antiseptic surgery and antiseptic midwifery, cases were seen, after childbirth, of puerperal arthritis.

As a result of osteomyelitis, or acute necrosis of a bone, of which the lower part of the femur is very apt to be the seat, or it may be the petrous portion of the temporal bone, blood-poisoning is produced by the setting free into the blood-stream of showers of streptococci or staphylococci. All these agencies may give rise to a form of joint disease closely resembling rheumatism. Gout has long been confounded with rheumatism, and is so still in many quarters. When gout is in its typical form, falling upon the great-toe joint, in an overfed and overindulged person, the diagnosis is not very difficult; but, when gout occurs in a number of joints at the same time, the diagnosis is much more difficult. Polyarthritis uratica—that is to say, a generalized gout occurring in many joints—may simulate rheumatic fever very closely. In typhoid fever in the first ten days there may be pains which may lead one to suspect rheumatic rather than enteric fever. In relapsing fever in the early stages there may be this pain occurring in the joints which may prevent an exact diagnosis being made. In scurvy-rickets in children there is enlargement of the joints and bones, and, if one is not familiar with that disease, he is apt to suspect that it is nothing more than rheumatism. But by far the larger number of mistakes are made in the case of osteo-arthritis, which is sometimes called rheumatic gout, which is, for the most part, a chronic form of arthritis, not infrequently starting acutely. There are many degrees and many varieties of rheumatic arthritis. In the acute forms mistakes may easily be made in thinking the patient is suffering from rheumatic fever. The first thing noticed is that the treatment found to be generally successful in rheumatic fever is of no use here. The same may be said with regard to gonorrhœal arthritis. Four out of every five cases of true rheumatic fever are promptly relieved by salicylate-of-sodium treatment. But there remain a few cases of rheumatic fever which are not benefited by salicylate. Whenever it is found that salicylate treatment does not do good, one may reasonably conclude that he is dealing with a case, not of rheumatic fever, but, perhaps, with a variety of arthritis due to some other infection. Sir Dyce Duckworth (Phila. Med. Jour., Jan. 4, 1902).

SARCOMA OF LARGE INTESTINE.

Of fourteen of personal cases in which is recorded the diagnosis made before operation or autopsy, in only two can the tumors be said to have been fairly accurately localized. The presence of metastasis to the lymph-glands and the peritoneum may give rise to the presence of multiple tumors, which may be very confusing.

The primary symptoms are gastro-intestinal manifestations of a dyspeptic type, especially abdominal pain, anorexia, and vomiting; progressive. rapid emaciation; moderate fever; abdominal distension, usually without ascites, but occasionally associated with œdema of the lower extremities; and the presence of a tumor, which is more often movable than immovable, frequently tender, usually of firm consistence, and often located in the right iliac region. The absence of obstruction in the great majority of cases is of great significance. The above chain of symptoms occurs in persons of any age, but with greatest frequency in those under forty years, and with relative frequency in the early years of life. The group of symptoms cited does not differ materially from

that associated with sarcoma of the small intestine, except, perhaps, the more frequent location of the tumor in the right iliac fossa in disease of the large intestine, owing to the frequent location in the cæcal region. The tumor may be very tender in the case of the large intestine, in which it probably does not differ from some cases of tumor of the small bowel, which, in the majority of instances, are said to be slightly or not at all tender. Both are liable to be complicated by intussusception.

The main points of differentiation would seem to be, in a sarcoma of the large bowel, its appearance in the majority of cases in early life (under forty); the early appearance, rapid growth, and large size of the tumor; the quick cachexia, and the absence of obstruction in most of the cases. Pain and tenderness may be present in both; but pain is an early and rather constant symptom in sarcoma of the large intestine. while in carcinoma it does not usually manifest itself until symptoms of obstruction develop. J. H. Jopson and C. Y. White (Amer. Jour. of the Med. Sciences, Dec., 1901).

TUBERCULOSIS, PRIMARY ABDOMINAL.

The diagnosis of primary abdominal tuberculosis is exceedingly difficult. Abdominal surgeons are the best diagnosticians in these cases. All that the physicians can do at present is to look with suspicion on every case of chronic indigestion, biliousness, constipation, diarrhœa, abdominal pain or tenderness, bladder disturbance, leucorrhœa, and persistent backache, when accompanied by circulatory disturbance and loss of weight. In some forms of intra-abdominal tuberculosis a diagnosis can be positively made, when the disease has advanced to the breaking-down stage, by a microscopical examination of the discharges. This applies best to tuberculosis of the kidneys, but may also apply to tuberculosis of the uterus, tubes, and ovaries. Injection of tuberculin for diagnostic purposes may be resorted to when the symptoms point to tuberculosis, but are too meager to warrant a conclusion. Sometimes light can be thrown upon a case by treatment.

As knowledge about intra-abdominal tuberculosis increases, one will no doubt find that success in treatment depends upon early diagnosis and the establishment of vigorous treatment before mixed infection has set in. L. F. Flick (St. Louis Courier of Med., Dec., 1901).

TUBERCULOSIS, PULMONARY.

The specific premonitory symptoms of pulmonary tuberculosis are loss of weight, gastric disturbance, pallor, lassitude, vasomotor disturbances, perhaps cold hands and feet, or intermittently very hot extremities, shallow breathing, irregular chest-pains, and dry cough, especially on deep inspiration, with the most important symptom of all,—unexplained afternoon temperature,—although such a temperature can be of nervous origin.

As to the previous history, there has often been much sickness, especially colds; enlarged glands, suppurating or not; adenoids; middle-ear catarrh; joint inflammation, not rheumatic or syphilitic; chronic diarrhœa, and perhaps a rectal fistula.

As soon as the first symptoms of pulmonary localization occur, whether ascertained by physical or x-ray examination, the diagnosis is positive. Before such localization is discoverable, being unable to make a positive diagnosis,

shall one use tuberculin? After a most careful study of the results of many experimenters the conclusion has been reached that for the general practitioner the following thoughts should be considered:—

First, the tuberculin test is reliable, pathognomonic, and justifiable.

Second, it should not be used carelessly, though perfectly safe if a small dose is first used. If there is no reaction, the dose should be gradually increased. If no reaction to a full dose is thus obtained, the patient is free of tubercular infection; but this non-reaction does not preclude the danger that a doubtful case has of becoming infected; hence the preventive cure is the same.

Third, in cases in the first stage, with a localized pulmonary lesion, the use of tuberculin is unnecessary.

Fourth, when one recognizes in a patient evident tendency to allow the tubercle bacillus to fasten on and grow, preventive treatment should be instituted whether the germ is there or not; hence, it is not absolutely necessary to know whether some gland in the body contains a tubercle or not.

Fifth, in doubtful joint cases, or where it is best to positively know whether the infection is actually in the system, tuberculin should be used. O. T. Osborne (Yale Med. Jour., Dec., 1901).

UTERUS, FIBROID TUMORS OF THE.

From reports of various operations, the estimate that the mortality of hysterectomy and myomectomy varies from 2 to 10 per cent. depending upon the gravity of the cases, upon the operator, and upon the environment in which the operations are done, is justified.

The conclusion is inevitable that the proper treatment of fibroid tumors of the uterus is their early removal. Early operation not only greatly lessens the mortality, but, what is of more importance, it also saves the long period of invalidism, which is otherwise unavoidable.

Believing that the best treatment of fibroid tumors in general is their early removal, the question remains whether there are no exceptions to this rule. The best answer to this is that each case must be decided upon its merits. It is personal individual experience that small multinodular subperitoneal fibroids in women forty years of age or more are the least apt to grow and to cause serious symptoms. Conversely, submucous and intramural fibroids in younger women are the most apt to develop and cause serious trouble. But few fibroids have been met with which are not producing symptoms, and, therefore, the percentage of cases is small in which operation is not more advisable than expectancy. C. P. Noble (Brit. Gynæc. Jour., Nov., 1901).

VULVO-VAGINITIS, GONORRHŒAL, IN YOUNG CHILDREN.

1. Vulvo-vaginitis in the young girl may be divided into simple and gonorrhœal. 2. Simple catarrhal vaginitis is due, in a large majority of cases, to lack of cleanliness, and subsides when the proper treatment is instituted. 3. Gonorrhœal vulvo-vaginitis in young children is more common than is generally supposed. While more frequently met with amidst unhygienic surroundings in large cities, it is by no means a rarity in the less thickly settled districts. 4. Gonorrhœal disease is more frequent below the age of six; it is more

common in girls than in boys. 5. Specific vulvo-vaginitis, in the large majority of cases, arises from actual contact of the patient with some infected person. A study of the reported epidemics, however, shows that the disease may be spread by other means, such as a common bath, towels, bed-linen, etc. 6. The ordinary staining methods will prove satisfactory in making a differential diagnosis between specific and other forms of vulvo-vaginitis. 7. The parts affected in their order of frequency are the labia, urethra, vagina, and cervix; the vagina is more frequently affected in the child than in the adult, owing to the character of its epithelium. 8. The tubes, ovaries, and peritoneum may be involved in the pathological process. It is not improbable that certain diseases of adult life may be ascribed to gonorrhœal infection in infancy. 9. Purulent ophthalmia and rheumatism are quite frequent complications. The strictest prophylaxis should be observed in order to avoid the former. 10. The treatment of specific vulvo-vaginitis must be energetic to be of any avail. Under certain conditions the vaginal orifice should be widely dilated and the vaginal pus-cavity properly drained. Reuben Peterson (Amer. Medicine, Jan. 11, 1902).

WHOOPING-COUGH.

Of drugs for internal medication, the antispasmodics are the best. Mistura asafœtida, $^1/_2$ drachm every two hours, is of value. This, however, is often disappointing, and probably the next best drug is belladonna. The dose of the tincture should be 1 drop for every month of the child's life, and should be pushed to the full physiological effect. A prescription personally used is the following:—

℞ Atropinæ sulphatis, 1 grain.
Aquæ destillatæ, 1 ounce.

One drop of this is given every three to four hours, and gradually increased until a cutaneous flush is obtained, and the child is then kept under its physiological effect. Of the coal-tar products, antipyrin is the best. One grain of antipyrin is given for each year of the child's life.

A combination of belladonna or atropine and antipyrin acts better than any alone. A very useful adjuvant is the use of a freshly-prepared belladonna plaster placed between the scapulæ.

Convalescence is favored by sea-shore life, and a tendency to chronic bronchitis is overcome by an early and continued use of codliver-oil. W. C. Hollopeter (Medical Bulletin, Dec., 1901).

Monographs Received.

The editor begs to acknowledge, with thanks, the receipt of the following monographs:—

Memoir of William Fisher Norris. By Charles A. Oliver, Philadelphia. 1901.——A Case of Myasthenia Gravis. By Haldor Sneve, M.D., St. Paul. 1902.——The Nasal Septum. By Walter J. Freeman, M.D., Philadelphia. 1901.——Pennsylvania's Part in the Winning of the West. By Horace Kephart, St. Louis, Mo. 1902.——Carbon Bisulphide as an Insecticide. By W. E. Hinds. United States Department of Agriculture, Washington, D. C. 1902.——Experiment-Station Work, XIX. United States Department of Agriculture, Washington, D. C. 1901.

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[End of the Editorial Department of the Monthly Cyclopædia for February, 1902.]

NOTES AND COMMENTS.

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MR. WHITE, OF KANSAS.

One is constantly reminded that this is a country of free speech by the daily newspapers, which are accustomed to "saying things" about political luminaries with remarkable candor. The biographical writer, however, has usually found it desirable to delineate his characters with a strong light carefully thrown on their good points, and their weaknesses well hidden in the background.

Mr. William Allen White, who achieved fame in a single night by his editorial "What is the Matter with Kansas?" has been amusing himself as well as his readers by the preparation of a series of biographical sketches of men prominently identified with politics, in which the strong, calcium light is thrown on every characteristic, whether commendable or otherwise.

This is rather a dangerous precedent to establish in political biographies.

THIS IS A QUEER WORLD.

There has been a large amount of capital invested in the manufacture of infant-foods, a vast fortune expended in advertising them, and a very large number of portraits of extremely-happy looking youngsters have been published for the benefit of an admiring public in order to show the great benefits derived from these foods. The reading public, or that portion of the same which has a baby, is quite prone to select its infant-food according to the impression produced by the portrait published to show up the unrivaled excellence of the article for sale.

Now, one of those iconoclastic doctors, probably suffering from excessive indulgence in "Lobster *á la Newburg*" or some other delicacy, announces that the infant-foods are all a fake, and that the benefit secured from their use is due to the cows' milk with which they are combined.

"When doctors disagree," has become a world-famous phrase,—and no wonder! When it is announced simultaneously with the publication of the above statement that the milk-supply of a whole great State is more or less tainted with germs, and when the susceptibility of children to germ-life is considered, it arouses a feeling of wonder that any child ever reaches the age of five years.

The doctor who is an extensive reader of medical literature soon learns to estimate such radical statements at very near their real value.

PRIZE-ESSAYS ON PREVENTIVE MEDICINE: A LIBERAL OFFER.

The Maltine Company, of Brooklyn, N. Y., long since earned and has always retained the confidence and esteem of the medical fraternity. Its products are of standard excellence. The company is distinguished for its progressive methods. It is continually on the alert, watchful of every mechanical procedure or chemical manipulations by which improvement may, if possible, be effected. The line of articles manufactured by this company brings them in relation not only to physicians as practitioners of the healing art, but to the same individuals in their capacity of sanitary advisers. Nutritious and digestible preparations are of interest not solely to sick people and invalids, but also to those who are and desire to

remain well. The question of food is, in particular, of importance both in health and disease. The nature of its products and the trend of its investigations, conjoined with its characteristic liberality, has inspired the officers of the company to issue a remarkable offer, the details of which are fully explained upon another page, and to which we take pleasure in calling the attention of our readers. "Prevention is better than cure" is an old adage which has always and everywhere been recognized as the embodiment of wisdom. The field of preventive medicine is now diligently cultivated, and its work is better appreciated than in former times. With the laudable object of encouraging such studies and their practical application for the general welfare of humanity, the Maltine Company has made the offer to which we allude. A first prize of $1000 and a second of $500 are to be given to the writers of essays on preventive medicine which shall be selected as worthy of the reward, by distinguished judges.

BRIGHT'S DISEASE.

From a paper by Eugene Carl Roemele, Ph.D., M.D., Professor of Materia Medica and Therapeutics in the Hospital College of Medicine, Louisville, Ky., and read before the Kentucky Society of Medicine, we take the following: Case 3. Mrs. M., aged 36. This lady had been passing from two to four liters of urine of a specific gravity of 1.012 per day. Albumin was abundant in great quantities, showing on either the heat or nitric-acid test. The number of white blood-corpuscles was greatly diminished, which we all know are increased by the employment of protonuclein in 5-grain tablets (and the writer prefers it in this form in order to prevent substitution). It was necessary for the patient to get up several times during the night to relieve the bladder, which would become very greatly distended. The inability of the stomach to retain any medicine whatever seemed to be the greatest trouble. She had been given the so-called stomachic tonics without satisfactory results. Finally I gave her the peptenzyme and trophonine. This was very firmly retained, and after she had taken the 5-grain tablets of protonuclein, she was able to retain all other medicines given her for Bright's disease, which she had been suffering from.—Abstract from the Kansas City Medical Record, December, 1901.

THE TREATMENT OF NASAL CATARRH.

Mannon (Cincinnati Lancet-Clinic) finds no danger whatever from the use of the nasal douche, provided ordinary care is taken and a proper solution is employed. The charge that post-nasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treat-

ment in the posterior as well as the anterior nares, with equally good results. The doctor has had chronic nasal catarrh of many months' duration yield to douching when heroically employed. Listerine, to which a small quantity of bicarbonate of soda has been added, is his main stand-by. If hæmorrhage is a controlling feature, he uses instead a saturated solution of tannic acid, to each ounce of which 10 grains of carbolic acid has been added. When the tendency to bleed ceases, he returns to the listerine solution. Treated in this way, the most pronounced cases yield in three or four weeks, and are not prolonged by complications or sequelæ.

MARDI GRAS—ONE-FARE ROUND TRIP—NEW ORLEANS, MOBILE, AND PENSACOLA.

The Southern Railway announces that it will sell round-trip tickets to New Orleans, Mobile, and Pensacola at one-fare round trip on February 4th to 10th, inclusive, good to return until February 15th, except by deposit of ticket with joint agent on or before February 15th, will be extended until February 28th, an additional fee of fifty cents will be charged. The Southern Railway is the only line operating through Pullman sleeping- and dining- cars from Philadelphia to New Orleans, and the time consumed in making the trip is only thirty-six hours. Those who desire to visit the South will find no better opportunity. The rates are exceedingly low. Charles L. Hopkins, district passenger agent of the Southern Railway, 828 Chestnut Street, Philadelphia, will furnish all information.

HUEPPE AND KOCH.

The two schools of thought on questions bacteriological are well represented at present by the distinguished investigators Hueppe and Koch. Both men are deeply versed in bacteriology and physiological chemistry. Hueppe emphasizes the importance of the perfect health of the body-cell, and the special treatment of the body-cell as a means of frustrating the attacks of germ-life. Koch emphasizes the importance of destroying entirely all germ-life so that there will be no attack.

Of course, both men are right. We must destroy all the germ-life we can. But, since a war of extermination of disease-germs is impracticable at present, the physician finds a more profitable field for his exertions in preparing the body-cells to resist and throw off the attack of germ-disease. It is no doubt by this sort of special preparation of the lung-cells that hypophosphites and codliver-oil do so much to prevent the progress of the tubercular organism. Scott's emulsion, containing

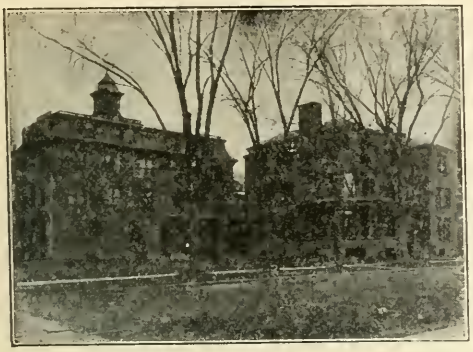
both the codliver-oil and the hypophosphites, is a good example of those therapeutic agents which bring immunity by reinforcing cell-life.

GRIPPAL COUGH—LARYNGITIS—BRONCHITIS.

In these affections antikamnia is indicated for two reasons: First, because of its absolute power over pain, at once removing this element of distress and placing the whole system in the best possible condition for a speedy recovery. And, second, because of its power to control inflammatory processes, lowering the fever by its peculiar action on the nervous system. Codeine is strongly indicated because of its power as a nervous quietant, often quickly and completely controlling the cough. In nervous coughs, irritation of the throat, laryngitis, bronchitis, and phthisis, where the cough is altogether out of proportion to the amount of expectoration, antikamnia-codeine tablets will give prompt satisfaction. In fact, in cases of nervous coughs, irritable throat, so commonly attendant upon influenza and grip, as well as in subacute laryngitis, and slight bronchitis, this tablet alone will often so control the cough that the disease rapidly subsides. This is not strange when we remember that nothing could keep up this irritation more than constant coughing. In the more severe cases of bronchitis and in phthisis the patient is not only made more comfortable, but the disease itself is brought more directly under control by checking the excessive coughing, relieving the pain, and bringing the temperature down to the normal standard.

INAUGURATION OF FLORIDA SERVICE.

The Florida season opened on January 14th by the inauguration of the fast Florida train over the Pennsylvania, Southern Railway, and Florida East-Coast Line. The famous Southern's Palm Limited, which we described some weeks ago, made its initial trip, and was filled to its capacity. The train will leave Philadelphia daily except Sunday 3.16 P.M., arriving at St. Augustine the following afternoon at 3.30, and will be composed exclusively of Pullman club, dining, compartment, drawing-room, sleeping, library, and



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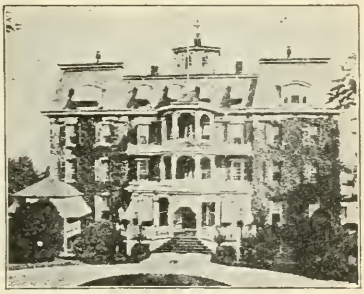

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A COURSE IN MASSAGE.

The attention of the medical man is being directed more and more toward manual therapeutics, as the great benefits of massage, especially, are becoming better and better known. The more the general public as well as the physician are familiarized with these advantages, the more satisfactory is the co-operation afforded the scientific physician in carrying on the offices of his profession.

One of the most competent instructors in massage known is Prof. Hartvig Nissen, author of "A Manual of Instruction for Giving Swedish Movement and Massage Treatment," a book which has had a very large sale. Professor Nissen purposes to give a course in massage at Roslindale, Boston, Mass., for four weeks, beginning Monday, July 7th, and ending Saturday, August 2, 1902. Tuition for this course is the very moderate sum of $15.00. Professor Nissen will be pleased to forward full particulars to physicians who may be interested. Letters should be addressed to: Hartvig Nissen, Instructor in Massage, Harvard University Summer School, Roslindale, Boston, Mass.

AN EXCELLENT APPARATUS FOR FLAT-FOOT.

Flat-foot is a source of misery. When the natural arch is lost, progress becomes difficult and painful, and the sufferer is more or less crippled. The tendency of the defect is, unfortunately, to go from bad to worse as the afflicted person grows in years. In serious cases an actual deformity is produced. The affection is not infrequently brought to the attention of the general practitioner. Both physicians and patients will be glad to learn that in the Arrowsmith arch-prop mechanical principles have been successfully applied to correct the depression of the arch and to restore an important member to usefulness.

By the Arrowsmith device, which has appropriately been named the arch-prop, the sole of the foot is firmly supported, and the arch of bones is gradually raised. The choice and arrangement of material is such that the apparatus is itself painless. This feature alone is one which will be highly appreciated by those afflicted with flat-foot.

The apparatus is made of the best German silver, is light, adjustable, and held in position by the weight of the body. The foot is supported by a constant upward pressure, which is continuous whether the individual be standing or seated. The elasticity of the Arrowsmith arch-prop prevents it from becoming a source of discomfort to those by whom it is worn. It is capable of being regulated as the position of the bones and the strength of the ligaments, muscles, and tendons are improved.

The statement of these features is sufficient to stamp the Arrowsmith arch-prop as an admirably devised mechanical support and corrector of deformity which deserves and doubtless will receive general recognition. Flat-foot is quite a common defect, and is but too often overlooked, the difficulty being erroneously ascribed to entirely different causes.

RHEUMATIC BRONCHITIS.

The far-spread ramifications of the rheumatic or gouty influence require to be constantly borne in mind. The disease is not simply one of joints, with perhaps fever and implication of the heart. The toxic action may be felt by almost every organ and tissue. Among other manifestations are those which concern the air-passages. It is well known that different forms of sore throat may depend upon the rheumatic diathesis. There are cases of bronchitis also, of the chronic type, occurring principally in cold and damp weather, which acknowledge their origin by their resistance to the drugs usually employed in bronchial catarrh, but respond favorably to treatment directed against the underlying cause, rheumatism. An instance of the kind has recently been related by Dr. Beandoin-Bennett. His patient was a man of 54 who had long suffered from chronic bronchitis, and in whom all ordinary measures had failed. At this time the physician resorted to the use of capsules of colchi-sal, together with the external application of betul-ol. Colchi-sal is a favorably known, efficient combination. It is a union of methyl-salicylic acid with colchicine. The poteney of these antirheumatic remedies has long been recognized, and it is now universally conceded that the natural salicylic acid obtained from oil of wintergreen is more efficient, more safe, and more pure than the artificial or synthetic product. Betul-ol is a compound methyl-oleo-salicylate.

The effect, in the case cited, was most happy. There had been marked dyspnœa as well as cough. In a week the patient had no dyspnœa and but little cough, and naturally inquired of his attendant: "Why did you not prescribe this long before?"

A GIGANTIC SUBSTITUTION FRAUD.

It is impossible to condemn too strongly the knavery of substitution. The nefarious practice strikes at the roots of commercial morality, it endangers the health or the lives of countless individuals, it may seriously damage the reputation of the physician, and it inflicts incalculable injury upon honorable manufacturers and pharmacists. In any sphere of trade adulteration, substitution, or sophistication is reprehensible. When, however, conscienceless deceptions are practiced in regard to medicaments, evil becomes outrageous. Physicians should regard it as part of their duty to

their patients as well as to themselves to see that their prescriptions are properly filled. Any deviation from literal accuracy should be exposed. Unscrupulous druggists should not be tolerated by physicians, patients, or by the upright of their own guild.

From every point of view substitution is to be condemned. All the great and reputable manufacturers have suffered from this abuse. If, after labor, experiment, and expense, a meritorious preparation has been placed upon the market, it is but common justice and fairness that its sale should be unimpeded by fraud; that those who desire to employ such an article should at least receive that for which they ask.

The latest fraudulent scheme to which our attention has been called occurred in Detroit. In that city a band of commercial adventurers systematically engaged in the most flagrant and wholesale sophistication. A suit brought against these so-called firms by the Farbenfabriken of Elberfeld Company was attended by some remarkable revelations. Such highly esteemed and reliable products as phenacetin, sulphonal, trional, and aristol were adulterated with other substances, put up in packages which were counterfeits of the original, and sold broadcast to any who would purchase. Boxes, labels, and goods were all bogus. Employees testified as to their total ignorance of the substances they packed and labeled. The heads of this business of deceit undersold reputable business-houses by furnishing another article. Comment upon such proceedings is unnecessary. A simple statement of the facts is ample condemnation.

THE ACTION OF TERP-HEROIN (FOSTER).

Terp-heroin (Foster) represents the practical method of exhibiting heroin, and marks a new and signal departure in bringing into favor that unique and important remedy. At the same time it presents, in a happy co-ordination of physiological effect and curative excellence, that which is best in terpin hydrate.

It acts as a marked sedative upon those nerve-centers which govern and direct the complex mechanism of respiration, and because of such effect it is stimulant, antispasmodic, and alterative. Its influence means a diminution of the number of respirations, an augmentation of the volume of inspiration, and an increased force to the act and agency of expiration.

In plain language,—such as we may use when offering the explanation to the patient,—the patient obtains the requisite volume of air with less muscular effort, and less expenditure of nerve-force. No special license is required to say that terp-heroin (Foster) thoroughly ventilates the lungs. Naturally, upon this condition of thorough and satisfactory pulmonary ventilation, there must ensue an improved condition of the blood—owing, of course, to the larger amount of absorbed oxygen.

Therefore, it is a true food. It is a food to satisfy air-hunger, a trustworthy remedy for all disorders characterized by air-hunger. It does not simply ameliorate the symptoms; it feeds; having fed, it cures. The food-value and the cure-worth go to indicate that its principal utility consists in the fact that it improves the local nutrition of the affected tissues of the respiratory tract.

The cough is no longer a pronounced symptom, as the remedial action is emphasized. It is for disorders in which the cough is a prominent and obdurate symptom that the relief is sought. It is that cough which robs the patient of his night's rest, counteracts all tonic treatment, and disturbs the circulation. Its disappearance means a notable advantage. It is not attended with a single disadvantage. There is no narcotism, no nausea, no interference with appetite, and no disturbance of digestion. The cough declines, and respiration health augments.

The analysis of this effect shows that the cough is arrested, and the irritation allayed,—without depressing the respiratory centers in the least. And no untimely sequels interpose. The bronchial secretions, instead of stagnating, respond with readiness to the expectorant action. The stimulation gives Nature her opportunity of manifesting a distinct analgesic action, relieving all pain which may be present. In short, the natural or physiological powers and functions of the respiratory tract are stimulated, controlled, or supplemented in their fight against disease; the powers of resistance are developed, and the tendency to recovery is organized. Thus, we are able to say and prove that good results are to be had in *all* disorders and derangements of the respiratory organs, and that these results are accented by the disappearance of every troublesome symptom.

Relief is speedy and effectual, but the positive cure cannot be artificially, and therefore unnaturally, hastened. It is not reasonable to demand of a remedy which acts through the functions of nutrition by promoting the building up of new and healthy tissues, and by eliminating those that are worn-out and unhealthy, that it should invariably manifest efficiency of action in a few hours or a few days. If the affection is but slight, and if the disease is but of recent origin, this early and immediate action may be met with. Such, for instance, is the case in acute tuberculosis, catarrhal pneumonia, acute bronchitis, laryngitis, and uncomplicated acute pulmonary congestion. But when the local disease is extensive, or has already lasted for some time, the physiological action of the remedy must be chronic like the disease itself. In other words, while the air-hunger is satisfied, and the lungs amply ventilated, in a short time, the absolute cure is interdependent on, and never

independent of, full nutrition of the tissues. Because of this great variability in effect, it seems advisable to exhibit the remedy in teaspoonful doses at first, every two or three hours, and after manifestation of improvement, vary it according to the conditions. When the cure is complete, the local lesions having disappeared, the treatment should not be left off abruptly, but continued.

It is to be remembered,—and emphasis of the knowledge is to be insisted on,—that the action of relief is something more than merely local. Terp-heroin is a food as well as a cure. It brings the respiratory organs (the entire respiratory system) to a health equilibrium, by inducing nutrition, by an antispasmodic power, soothing without reaction, and by its ability in expelling poisonous waste. If we will but receive it, the amount of oxygen inspired being augmented, and its action intensified by the combined terpin hydrate and heroin, the respiratory tract is vitalized, and general vitalization ensues. There are few, if any, drugs that go so directly, so unchanged, to the very citadel of the disease: the choking throat, the weakened lungs, the tense and quivering nerves, the largely-diminished oxygen-imbibing surface.

The reasons which obtain for the firm hold which terp-heroin (Foster) has come to have in professional confidence are strong and well maintained. It is a remedy that is efficient alike in active pulmonary congestion, pulmonary œdema, emphysema, broncho-pneumonia, bronchitis, bronchiectasis, bronchial asthma, pertussis, pulmonary apoplexy and collapse, pleurisy, mediastinitis, hydrothorax, hæmothorax, pneumothorax, phthisis pulmonalis, laryngitis, true and false croup, laryngeal abscess, œdema of the glottis, tubercular laryngitis, and—without measure—all other allied affections. The cough may be dry, expulsive, paroxysmal, husky, irritative, nervous, rough, or teasing; the pain may be sharp, constrictive, oppressive, dull or diffuse: the dyspnœa may be constant, intermittent, and variously caused: the expectoration may be mucous, blood-stained, serous, purulent, glairy, tenacious, copious, or scanty; there may be abnormal respiration, venous congestion, interrupted chest-movements, impaired mobility, emphysema, dysphagia, inflammation, or hectic fever; auscultation may have any of its many revelations, and palpation and percussion may describe a variety of tissue-changes,—terp-heroin (Foster) may be relied on. Because of its physiological action, the two natural elements of our being—food and oxygen—work in unison in the direction of health, and health is attained. It builds up the respiratory system. It is an honest alterative. It combats autoinfection. The solution is very agreeable and palatable, and the observations which have already been gathered as to its therapeutic virtue are scarcely second to any remedy in pronounced character.

CLINICAL REPORT.

SOME OBSTINATE BLADDER CASES.

By George W. Hopkins, M.D.,
Cleveland, Ohio.

John C., aged 31. Occupation, patrolman. Following exposure, patient experienced bladder symptoms as follows: Frequent urination, tenesmus, hypogastric pain, and a temperature of 101.4 degrees. The urine was scanty, turbid, and loaded with mucus.

Diagnosis.—Acute cystitis.

Treatment consisted of rest in bed, restricted diet, anodynes for the tenesmus, and diluent and alkaline drinks.

The acute symptoms promptly subsided, but the urine continued abnormal despite the general measures employed and the internal administration of urinary antiseptics.

Irrigations with boric-acid solutions of varying strength proved unsatisfactory, as did also solutions of potassium permanganate and silver nitrate similarly applied. A 20-per-cent. solution of glyco-thymoline was then substituted for irrigation, and the improvement was marked and continuous until recovery was perfect.

Harry R., aged 43. Occupation, book-keeper. Had a history of bladder trouble of several years' duration. His urine was blood tinged and loaded with mucus. Microscopical examination revealed an abundance of ammonia, magnesium phosphates, numerous disintegrating pus-corpuscles, blood-corpuscles, and blood-shadows.

Repeated examination with the sound gave negative results, but a sciagraph taken with a high-vacuum hard tube revealed a small calculus, which had persistently evaded the sound in previous examinations. Lithotomy was performed and the calculus removed, but the urine failed to return to normal.

Irrigation in turn with boric-acid, potassium-permanganate, and silver-nitrate solutions proved unsatisfactory. Glyco-thymoline irrigations proved satisfactory from the start, and recovery was ultimately perfect.

William L., aged 55. Occupation, saloon-keeper. Had a history of repeated attacks of gonorrhœa, which were never appropriately treated. Urine was voided with great difficulty, at frequent intervals, and loaded with mucus. Reaction was alkaline, and the microscope revealed an abundance of amorphous phosphates of calcium and magnesium flat epithelial cells, disintegrating pus-corpuscles, and indigo crystals. Examination confirmed diagnosis of chronic cystitis due to urethral stricture and hypertrophied prostate. Catelectrolysis by the slow method removed the stricture, and Bottini's operation relieved the enlarged prostate, but the urine failed to clear up as desired. The

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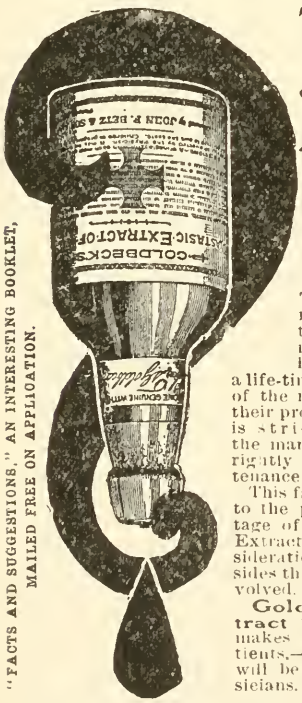

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cystoscope showed marked changes in the bladder-walls, but catheterization of the ureters yielded negative results.

Appropriate urinary antiseptics were administered internally and silver-nitrate solutions by vesical irrigation, with only slight improvement. Irrigation with 20-per-cent. solution of glyco-thymoline gave early and continuous improvement until recovery was perfect.

A CONTRIBUTION TO OUR KNOWLEDGE ON ANTIPYRETICS.

We are not far enough advanced in physiology to know what might be the effects resulting from the contact and mingling of the elements of some chemical compound with the physiological elements, cells or structures of the living diseased organism. We know that certain drugs will allay pain, but at what vital cost such alleviation is procured, we are at a loss to explain, although we resort to chemistry, pathology, microscopy to aid our findings in clinical and physical examinations. This refers especially to the various coal-tar products, some of which become of daily need to the busy practitioner. Is it sufficient to know the physiological and therapeutic action of these products, in order to obtain results from their use, or should we study the probable loss of vitality they may produce, or to what extent they may reduce the respiratory or circulatory action? No: a full understanding of the absolute present needs and the future possibilities is required, and this includes microscopical and chemical examination of the eliminations, subsequent and strict attention to diet, hydrotherapeutic means and good nursing. Thus armed we are able to select our antipyretic on scientifically correct lines, taking care to choose a remedy which is directed against the thermogenic tissues, thermogenic nerves and centers. The term thermogenic tissues, if taken in a broad sense, covers almost every tissue in the body, but I limit its interpretation as referring to the most active heat producers, the skeletal muscles and glands. The general thermogenic centers are in the spinal cord and brain, which is demonstrated by the fact that excitation of any one of these organs is followed by a pronounced thermogenesis. But we must not be led to believe that the increase of temperature alone is sufficient evidence of thermogenic disturbance. Insufficient diet tends to lower temperature while a liberal diet, especially of carbohydrates, increases the temperature. All conditions which increase metabolic activity are favorable to an increase of temperature, while rest brings about a reduction of temperature. Temperature per rectum reduces the first half hour after food is taken, to increase the next sixty to ninety minutes. Furthermore the temperature taken at different parts of the body differs; the usual observations of temperature taken in the mouth, rectum, vagina or in the axilla would give us different results in the same case. Kunkel (Zeitschrift für Biology. 1889, vol. 25, page 69-73) states that his researches have proven that the highest temperature of external parts is obtained in the hollow of the hand (closed) ranging 34.8°, 35.1° centigrade, and Bernard finds that the liver is the warmest organ in the body. The mean temperature of the body is subjected to variations which depend upon sex, age, constitution, time of day and season, baths, diet, climate, blood supply, disease, drugs, etc. A close relationship exists between the frequency of the heart's beat and body temperature, especially in fever. An increase in

Believing that a proper exercise of preventive medicine is of incalculable importance to the human race and desiring to stimulate further research in this line, or at least to disseminate some of the newer ideas so prominently discussed by the medical profession of recent years, we offer two prizes:—

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SECOND.—In order that there may be no violation of medical ethics and no suspicion of mere commercialism on our part, Maltine or any of its combinations *must not be mentioned or even indirectly alluded to in the essays.*

THIRD.—Competition is open to graduates of all recognized medical colleges.

FOURTH.—The essays will be judged by the following gentlemen:

DANIEL LEWIS, A.M., M.D., New York, President New York State Board of Health; Professor of Special Surgery (Cancerous Diseases), Post-graduate Medical School; Surgeon to the Skin and Cancer Hospital; Editor *Medical Review of Reviews.*

CHARLES A. L. REED, A.M., M.D., Cincinnati, ex-President American Medical Association; ex-President American Association of Obstetricians and Gynæcologists; Fellow British Gynæcological Society.

JOHN EDWIN RHODES, A.M., M.D., Chicago, Associate Professor Diseases of the Chest, Throat, and Nose, Rush Medical College; Former Professor of Physical Diagnosis and Clinical Medicine, Northwestern University Woman's Medical College.

and the prizes awarded in accordance with their decision.

FIFTH.—The essays are to consist of at least ten thousand words.

SIXTH.—Each competitor is to send us three typewritten copies of his essay by mail in a sealed envelope. These copies are not to be signed by the author, or contain anything which might point to his identity, but are to be signed with a *nom-de-plume.*

SEVENTH.—Another sealed envelope shall be sent to us containing this *nom-de-plume* together with the author's name and address. This envelope must be endorsed "For Identification," and will remain sealed until the judges have decided upon the two prize-winning essays, and will then be opened in order that the names of the successful competitors may be ascertained.

EIGHTH.—The prize-essays and any others which are deemed suitable will be published in a medical journal or journals subject to the approval of the authors.

NINTH.—We reserve the right to republish any of these essays in pamphlet form, restricting the circulation to the medical profession.

TENTH.—Essays entered in competition must be in our hands by September the first, 1902.

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temperature will increase the pulse rate, but more important than the latter is the effect produced by the amount of blood supplied to any given part of the body. A larger supply of blood to the cutaneous surface increases cutaneous temperature and decreases internal temperature, and *vice versâ*. It would require pages to enumerate the various points which may cause changes in temperature—produce thermogenesis or thermolysis. Sufficient has been said to demonstrate that the blood is the foremost factor in all cases where thermogenesis has appeared; furthermore pathology has sufficiently advanced to demonstrate by blood examination that destructive histological changes occur in the blood cells, and subsequent chemical analysis of the fæces and urine reveals excessive phosphatic elimination.

blood corpuscles, but has no effect on the amount of hæmoglobin. Most antipyretics are decomposed in the body, and the product of decomposition acts on the hæmoglobin of the blood to form methæmoglobin, while others lessen heat production by an influence on the nervous system, the blood pressure remains unaltered and their decomposition products do not affect the hæmoglobin. When selecting our antipyretics we must consider the hypnotic and analgesic properties they contain. Most antipyretics, sedatives, and analgesics exert their effect through the general circulation, and many paralyze the central nervous system and are slowly absorbed in the stomach. Physicians often disagree in a given case on any one plan of treatment, when there is no dispute, not even a doubt as to the diagnosis, for, after all is said and done, the

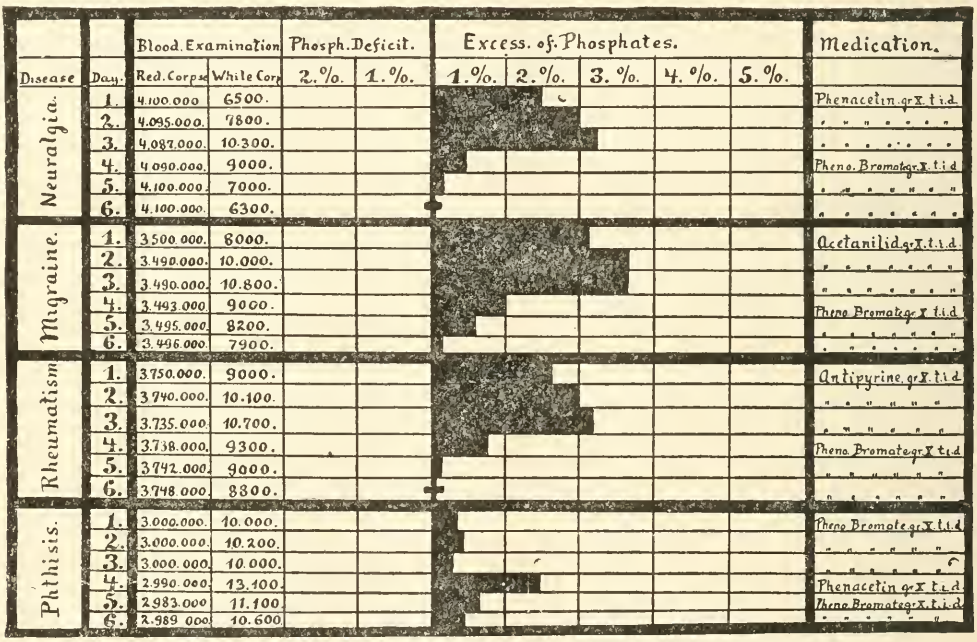

Fig. 1.— Amount of Phosphates in the Urine (centrifugal).

It appears to me as irrational to administer drugs in quantative doses in cases of similar history and clinical findings; as, for instance, quinine is given to the adult in doses of from 5-20 grains, to the child in doses of $^1/_2$ grain, while a thorough study not alone on clinical and physical lines might reveal the fact that the larger doses would be appropriate for the child. The value or danger of synthetic remedies can be foreseen if we view them from a chemical-medical stand-point, while the relation of all coal-tar antipyretics should be observed from a chemico-physiological and therapeutic stand-point. Their physiological action is aimed to retain the antipyretic effect of carbolic acid minus its caustic and poisoning properties. Carbolic acid diminishes thermogenesis and increases thermolysis. It reduces the number of red

former is largely empirical. Is it right to employ any antipyretic because we know some therapeutic merit has been attributed to every one of them? or, shall we stop and consider that acetanilid, antipyrine, etc., are not without their dangers and disadvantages, knowing them to be heart depressants? It may be taken as a rule that the powers, limitations, and dangers of most antipyretics are not yet understood. We have often heard of cases of acetanilid poisoning, of antipyrine poisoning, and it is of interest to know the full physio-clinical data of such cases, and if death follows to learn of the results following autopsy. An interesting case is described by Kronig (Berliner Klinische Wochenschrift, November 18, 1895). These antipyretics invariably cause an excessive elimination of phosphates in the urine, and I have

observed a large number of cases where the examination of the blood before and after medication showed decided histological changes. By merest chance, I came to use pheno-bromate, and it proved so signally successful in that one instance that I availed myself of all subsequent opportunities to give this antipyretic a further and more extended trial. I do not believe that the inherent value of a drug is demonstrated until its therapeutic action and physiological effect has been fully exploited.

Pheno-bromate does not depress the heart: on the contrary, it exerts a stimulating influence on this organ. It possesses no toxic properties, and does not disorganize the blood causing anæmia and its use is not followed by the elimination of phosphates in the fæces and urine, which is the case with most antipyretics. The accompanying proves more sedative than the opiates and no depression or ill effects are noted. The administration of pheno-bromate adds materially to the comfort of the patient, and does not interfere with any healing process. Continuous fever deteriorates tissue and exhausts the brain (hence increased thermogenesis), and it also interferes seriously with nutrition. As antipyretics are only resorted to when some excess of thermogenesis exists, it is rational to reason that some gastric disturbances are present, and consequently the blood picture will reveal a digestive leucocytosis or a leucocytosis influenced by medication (Fig. 2). Hence I assert in the introductory lines: A full understanding of the absolute present needs and the future possibilities is required, and this includes strict attention to diet, hydrotherapeutics, nursing, and the eliminations before the selection of an antipyretic

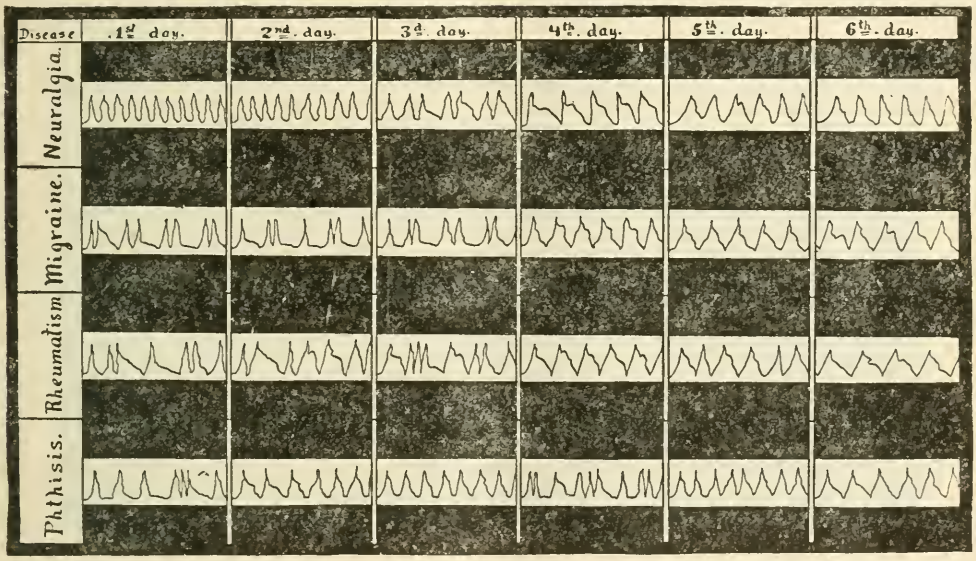

Fig. 2.—Daily Sphygmogram (one-half hour after medication) 10 A.M.

cut (Fig. 1) represents the amount of phosphates (earthy and triple phosphates) eliminated in four cases out of a probable one hundred cases treated with pheno-bromate: Case 1, neuralgia; case 2, migraine; case 3, rheumatism; case 4, fever of phthisis.

The same illustration clearly demonstrates that in all cases excessive elimination of phosphates and decrease of red blood corpuscles followed the use of antipyretics employed during first day's treatment, to become normal upon pheno-bromate medication. Pheno-bromate is a true thermotaxic, and it acts by restoring the normal heat-regulating powers of the nervous system. Its analgesic and hypnotic effects are decidedly more pronounced than those produced by most other antipyretics, and it has also valuable antispasmodic action. In painful muscular spasm after fractures of the thigh, it is decided upon. Antipyretics are always relied upon for the treatment of migraine, which is rarely a disease in itself, but is rather a symptom accompanying some other affection. At times it is an hereditary disposition. Discreet diet, evacuation of bowels, and continued doses of pheno-bromate until the physiological action of this drug is demonstrated, are required to realize the therapeutic value of this valuable non-toxic antipyretic. I have examined the blood and urine in not less than fifty cases, where pheno-bromate was the only medication employed, and I have always noted the stimulating and subsequent sedative effect after ten to fifteen grains of this efficacious antipyretic. This product is a happy synthesis founded on rational therapeutic principles.—L. H. Warner, A.M., Ph.G., M.D. (The Medical Council, August, 1901).

MEDICAL MISCELLANY.

DOCTOR, WHAT ARE YOU GOING TO DO NEXT WITH THAT PATIENT WHO HAS EXHAUSTED YOUR RESOURCES AND YOUR PATIENCE?

He sits cooped up in his office all day. When he goes home his wife feeds him with mushes and sweet stuffs, pickles, pastry, and all sorts of dyspeptic-producing viands, something you advise and warn him against, but which in his present environment you have no possible way of preventing. He has no time for any physical exercise. He is bilious, constipated, and melancholy. Digestants have failed. He is tired of pills. He cannot sleep. He is dreadfully nervous and is getting discouraged of course. What are you going to do next?

TRY THE PHYSIOLOGICAL METHOD.

Advise a vacation. Get him away from his business cares, and his stuffy store, and his French cook. The mountains, the woods, the seashore. a trip to Europe would do him good temporarily, if he is not too far down hill, but a better thing would be to send him to some scientific establishment where a regular system of health culture is conducted on scientific principles, and where he can have a diet exactly adapted to his case, hydrotherapy to increase or diminish his supply of gastric juice as the case may require, to improve his appetite, his assimila-

tion, and all his nutritive functions, where his muscles may be hardened by massage, manual Swedish movements, and systematic medical gymnastics, while his body is hardened and invigorated by his spending an hour or two a day in an out-door gymnasium chopping or sawing wood, tanning his skin on a big pile of beach sand, a plunge in the pool for a "cool-off," and a tonic every now and then, trotting around the sanded path bare-footed in a bath suit.

There is no medicine that will cure the consequences of sedentary habits and a bad diet. A change of habits, simple nutritious diet adapted to the individual case through the aid of a careful gastric analysis after a test-meal, and general systematic renovation by the aid of physiological restoratives such as sunlight, hydrotherapy, electricity, exercise, and general health culture are the means by which the natural curative forces of the body are aided in accomplishing a thorough-going and permanent restoration.

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